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Automated optical identification of a large complete northern hemisphere sample of flat spectrum radio sources with $S_{6\rm cm} > 200$ mJy

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ABSTRACT

This paper describes the automated optical APM identification of radio sources from the Jodrell Bank - VLA Astrometric Survey (JVAS), as used for the search for distant radio-loud quasars. Since JVAS was not intended to be complete, a new complete sample, JVAS++, has been constructed with selection criteria similar to those of JVAS ($S_{5GHz} > 200$ mJy, $\alpha_{1.4-5GHz} > -0.5$), and with the use of the more accurate GB6 and NVSS surveys. Comparison between this sample and JVAS indicates that the completeness and reliability of the JVAS survey are $\sim 90\%$ and $\sim 70\%$ respectively. The complete sample has been used to investigate possible relations between optical and radio properties of flat spectrum radio sources. From the 915 sources in the sample, 756 have an optical APM identification at a red (e) and/or blue (o) plate, resulting in an identification fraction of 83% with a completeness and reliability of 98% and 99% respectively. About 20% are optically identified with extended APM objects on the red plates, e.g. galaxies. However the distinction between galaxies and quasars can not be done properly near the magnitude limit of the POSS-I plates. The identification fraction appears to decrease from >90% for sources with a 5 GHz flux density of $> 1Jy$, to <80% for sources at 0.2 Jy. The identification fraction, in particular that for unresolved quasars, is found to be lower for sources with steeper radio spectra. In agreement with previous studies, we find that the quasars at low radio flux density levels also tend to have fainter optical magnitudes, although there is a large spread. In addition, objects with a steep radio-to-optical spectral index are found to be mainly highly polarised quasars, supporting the idea that in these objects the polarised synchrotron component is more prominent. It is shown that the large spread in radio-to-optical spectral index is possibly caused by source to source variations in the Doppler boosting of the synchrotron component.

1 INTRODUCTION

Over the last decade, a comprehensive catalogue of compact flat spectrum radio sources, the Jodrell Bank − VLA Astrometric Survey (JVAS), has been constructed (Patnaik et al, 1992; Browne et al., 1997; Wilkinson et al., 1998). The main aim of this survey was to provide the astronomical community with a network of bright radio sources with accurate positions ($\sim 10 - 15$ mas) primarily intended for use as phase calibrators for the Jodrell Bank MERLIN, the VLA and VLBI networks. In addition to its astrometric goals, JVAS proved an effective means of finding radio sources exhibiting strong gravitational lensing, with six systems confirmed to date (King et al. 1999).

Its virtually complete northern-sky coverage makes JVAS uniquely suited for studying the high luminosity end of the flat spectrum radio source population. Our group has been particularly involved in the search for distant quasars (Hook et al. 1996, Hook et al. 1998, Hook & McMahon 1998). As part of this project, sources in the JVAS survey were optically identified using the catalogue output of the APM (the Automated Plate Measurement Facility at Cambridge) scans of the POSS-I plates. This catalogue is ideal for identifying large samples of objects, since they are generated in an automated way allowing an objective assessment of their reliability and homogeneity.

This paper describes the automated optical identification procedure of JVAS, as used for the search for distant quasars. It can be used as a guidance for future projects, involving the optical identification of comprehensive samples of flat spectrum radio sources, like those in the Cosmic Lens All Sky Survey (CLASS; Myers et al. 2001). Since JVAS is not complete, a new sample is constructed using selection criteria similar to those of JVAS, but with the emphasis on completeness, and with the use of more accurate selection

Survey	Freq.	Wave-length	Reso-lution	Flux Density	Position Error
	(GHz)	(cm)	(arcsec)	(mJy)	(arcsec)
87GB	4.85	6.2	210	>25	10−30
GB6	4.85	6.2	210	>18	10−30
GB1400	1.40	21.4	710	>150	30−70
NVSS	1.40	21.4	45	>2.5	1−7

Table 1. The relevant parameters of the radio surveys used for the selection of JVAS and JVAS++.

surveys. By comparing this sample with JVAS, the completeness of JVAS is assessed. This is described in section 2. Section 3 and 4 describe the APM-POSS-I catalogue and the optical identification procedure of JVAS and its complete counterpart. Section 5 gives the results and discusses possible relations between optical and radio properties using the complete sample.

2 A COMPLETE SAMPLE OF FLAT SPECTRUM RADIO SOURCES

2.1 The Jodrell Bank – VLA Astrometric Survey (JVAS)

The JVAS catalogue has been presented in three separate papers, for the regions $+35^\circ \leq \delta \leq +75^\circ$ (Patnaik et al., 1992), $+0^\circ \leq \delta \leq +20^\circ$ (Browne et al., 1997), and $+20^\circ \leq \delta \leq +35^\circ$ and $+75^\circ \leq \delta \leq +90^\circ$ (Wilkinson et al., 1998). Their initial source list was constructed using the Greenbank surveys conducted at 1.4 and 5 GHz by Condon & Broderick (1985, 1986) and Condon, Broderick & Seielstad (1989), selecting all sources with spectral indices larger than $\alpha = -0.5$ (α defined as $S_\nu \propto \nu^\alpha$) and $S_{5GHz} \geq 200$ mJy, excluding the region $|b| < 2^\circ.5$. The 5 GHz flux densities used to construct the sample were determined directly from the maps and have been found to be systematically higher by $\sim 10\%$ than the flux densities determined by Gregory and Condon (87GB, 1991) from the same maps. Since the main goal of JVAS was to construct a grid of phase calibrator sources, and the distribution of the sample above contained some undesirable large holes ($\sim 5^\circ$) in some areas, a few additional sources were selected with $S_{5GHz} \geq 150$ mJy to fill these holes. Where possible, the potential calibrator sources were cross-checked against lower frequency surveys to make sure they had genuine flat spectra. The resulting source list was observed with the VLA at 8.4 GHz between 1990 and 1992 (Patnaik et al, 1992; Browne et al., 1997; Wilkinson et al., 1998). The resulting catalogue includes sources with observed 8.4 GHz peak brightness ≥ 50 mJy/beam.

For sources that are in the regions $+0^\circ \leq \delta \leq +20^\circ$ and $+35^\circ \leq \delta \leq +75^\circ$ the rms position error was estimated to be approximately 10 mas in each coordinate (Patnaik et al., 1992; Browne et al., 1997). For sources in the regions $+20^\circ \leq \delta \leq +35^\circ$ and $+75^\circ \leq \delta \leq +90^\circ$ this was estimated to approximately be 40 mas (Wilkinson et al., 1998). The resulting catalogue contains 2121 radio sources.

2.2 The selection of a complete flat spectrum sample

The JVAS catalogue was primarily intended to provide phase calibrators with a uniform sky distribution, and was not intended as a statistically complete flat spectrum sample. Therefore, a similar, complete sample has to be defined to be able to conduct statistically meaningful optical/radio studies. This sample, which we call JVAS++, will then also be used to assess the completeness of JVAS.

The JVAS++ sample was constructed using similar selection criteria as used for the Cosmic Lens All Sky Survey (CLASS; Myers et al. 2001), and is based on the recently available and more accurate radio surveys, the GB6 at 5 GHz (Gregory et al. 1996), and the NVSS at 1.4 GHz (Condon et al. 1998). All the relevant parameters of the radio surveys involved are given in table 1. In the selection procedure, the 1.4 GHz flux density of a GB6 radio source is defined as all the NVSS flux within $70''$ of the GB6 position (as used for CLASS). The sample has the following selection criteria:

1 GB6 5 GHz flux density, $S_{5GHz} > 200$ mJy
2 declination, $0^\circ < \delta < 75^\circ$, galactic latitude, $|b| > 30^\circ$.
3 radio spectral index, $\alpha_{1.4-5GHz} > -0.5$.

In this way, 915 sources were selected. The distribution on the sky is shown in figure 1. The high galactic latitude cut-off was chosen to reduce the possible influence of galactic foreground extinction. Furthermore, the APM catalogue is only available at these latitudes. About 16% (153) sources are not in the JVAS sample and have been observed with the VLA in B configuration at 8.4 GHz as part of the CLASS survey, in a similar manner as the targets in the JVAS sample (Myers et al. 2001). These provided us with radio positions at an accuracy similar to those of the JVAS sources. Fifty-eight sources are fitted by multiple components at 8.4 GHz. For these, the positions of the brightest components are used. Fifteen objects are not detected with the VLA, all exhibiting extended structure on arcminute scales.

2.3 The completeness and reliability of JVAS

JVAS contains 762 sources which overlap with JVAS++. In the same area of sky, another 371 sources are part of JVAS, but are not in JVAS++. In addition, 153 objects are in JVAS++, but are not part of JVAS.

The large differences between the JVAS and JVAS++ are due to several effects:

1 the use of different selection surveys for JVAS.
2 the use of a difference flux density scale for JVAS, which was found to be offset by 10% at 5 GHz.
3 the use of a variety of spectral data in the target selection, the non-detection of some sources, and the exclusion of some sources for which the observed VLA position was found to be offsetted by more than 40 arcseconds from the pointing position.

The use of a different flux density scale at 5 GHz, implies that the actual selection criteria for JVAS are, $S_{5GHz} > 180$ mJy, and $\alpha_{1.4-5} > -0.58$. This effect, in combination with the inclusion of sources with 150 mJy $< S_{5GHz} <$ 180

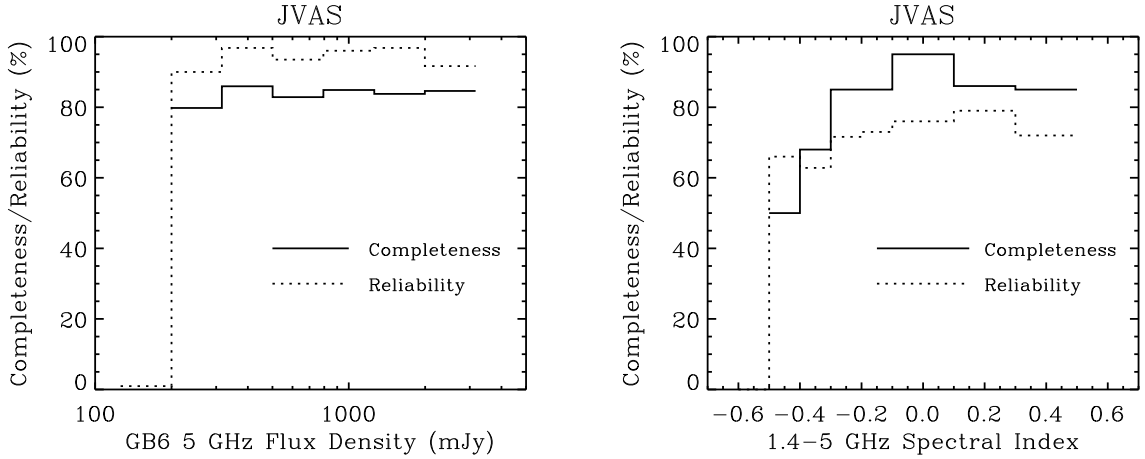

Figure 2. The completeness and reliability of the JVAS survey as function of GB6 5 GHz flux density (left) and 1.4-5 GHz Spectral index (right), with respect to JVAS++ as defined in section 2.

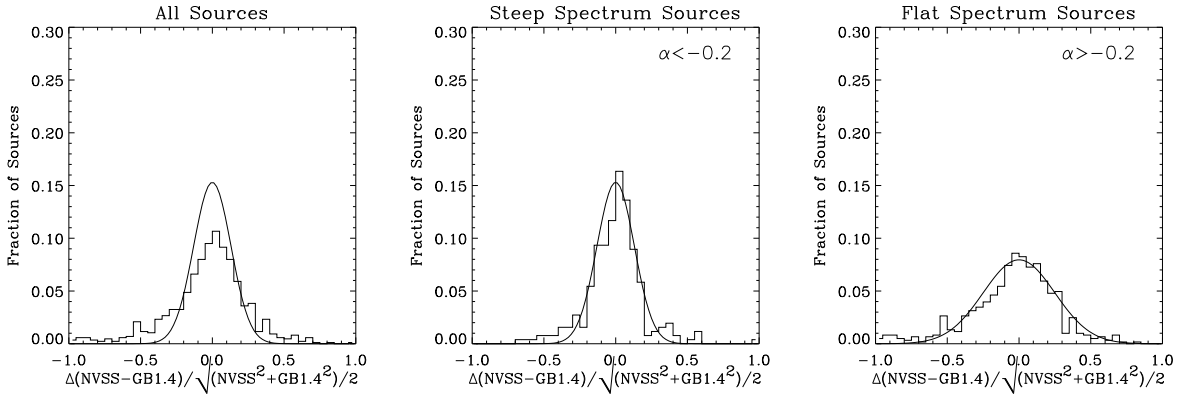

Figure 3. The distribution of the normalised differences in 1.4 GHz flux density of the GB1400 and NVSS catalogues for all the sources in the complete sample, (left), steep spectrum sources (middle) and flat spectrum sources (right).

mJy, to fill holes in the sky distribution, causes the low reliability of JVAS. Note that since these sources are fainter than 200 mJy, they do not influence the reliability above this flux density, which is typically $> 95\%$ (see fig. 2, left). However, they are included, when the reliability is plotted as function of spectral index (fig. 2, right), causing it to be typically $< 75\%$.

The use of different selection surveys has three effects. Firstly, the Greenbank 1400 MHz survey, used for the selection of JVAS, has a $12'$ FWHM resolution, compared to $45''$ for the NVSS and a search radius of $70''$ used for the revised 'complete' sample. Therefore, sources with extended structure at arcminute scales may have been excluded from JVAS with $\alpha < -0.5$, but included in the comparison sample. This is reflected in Figure 2 (left), showing that the completeness of JVAS is decreasing to $\sim 50\%$ at the steep spectral index cut-off. Indeed 49 objects exhibit extended structure at arcminute scales. These are shown in the appendix, where their NVSS images are overlaid with data from the Digitized Sky Survey (Lasker et al. 1990).

Secondly, the use of different selection surveys may cause sources to be included or excluded due to their possible intrinsic variability. Thirdly, measurement uncertainties may cause differences in the selection. To show the influences of variability and measurement uncertainties on the selection process, the Greenbank 1400 MHz observations were compared with the NVSS, and the 87GB data were compared with the GB6. Figure 3 shows the normalised differences between the GB1400 and NVSS flux densities for the sources in the complete sample, with no radio spectral selection on the left, 'steep' spectrum ($\alpha < -0.2$) sources in the middle, and 'flat' spectrum ($\alpha > -0.2$) sources in the right panel. About 12% of the sources do not have a GB1400 flux density since they are too faint to be in the catalog by White & Becker (1992). These are excluded from the analysis. The NVSS flux densities were decreased by 3% to match the GB1400 flux density scale. The distributions are overlaid by Gaussians with $\sigma = 0.13$, 0.13, and 0.25 respectively. The distribution for the flat spectrum sources is clearly much broader ($\sigma = 0.25$) than that for steep spectrum objects ($\sigma \sim 0.13$). This indicates that the differences between GB1400 and the NVSS for flat spectrum sources is dominated by variability, which is about 2 times larger than the measurement uncertainties. From a similar distribution of normalised flux density differences between NVSS and the FIRST survey (White et al. 1997), we found that the measurements errors

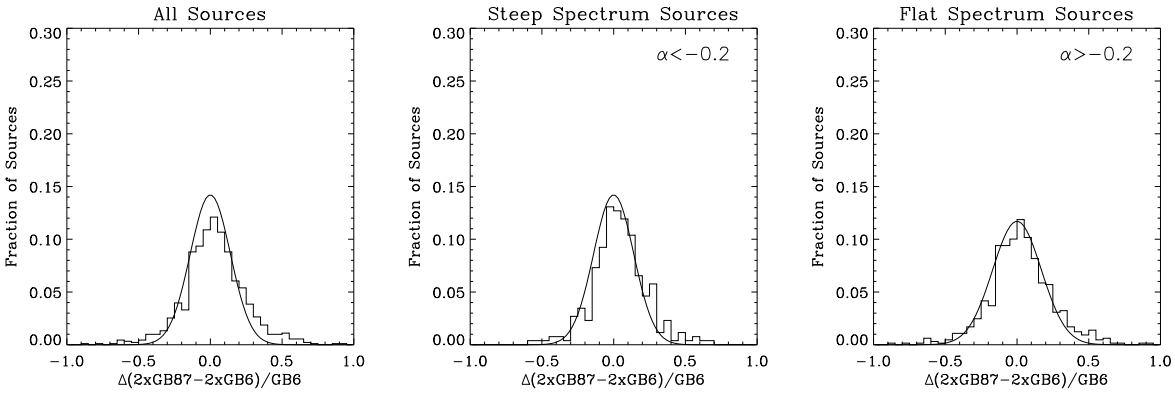

Figure 4. The distribution of the normalised differences in 5 GHz flux density of the GB6 and 87GB catalogs for all the sources in JVAS++, (left), only the steep spectrum sources (middle), and only the flat spectrum sources (right)

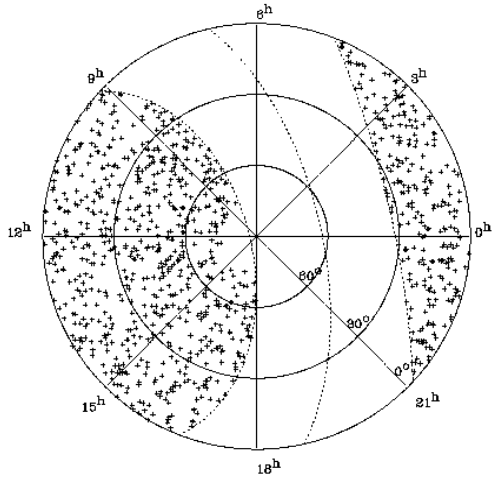

Figure 1. Polar projection of the sky distribution of the sources in the complete sample. The dotted lines indicate the 0° and ±30° galactic latitudes.

in both FIRST and NVSS are about 5%. This means that, assuming that the distribution of the steep spectrum sources is solely due to measurement errors, the GB1400 survey has an uncertainty in flux density of 12%. Note that this uncertainty has a proportional term and a constant term, the latter due to noise and confusion. In FIRST and NVSS, this constant term is unimportant for our sample. However for the GB1400 survey with a noise level of ∼ 25 mJy, this factor probably dominates the uncertainty in flux density for the faintest sources.

A similar analysis has been carried out for the two selection surveys at 5 GHz, which is shown in figure 4. The GB6 and 87GB are not independent; GB6 is based half of on the 87GB dataset, and half on a similar dataset, taken a year earlier. Since we are interested in the variability aspect, we assumed that the flux densities of the sources in the second dataset is $2 \times GB6 - 87GB$. The normalised differences between the flux densities taken at these epochs are shown in figure 4, with on the left with no spectral selection, in the middle for steep spectrum sources, and at the right for flat spectrum sources. The distributions are overlaid with a Gaussian with a σ of 0.14, 0.14, and 0.17 respectively. Assuming that the distribution of the steep spectrum sources is solely due to measurement uncertainties, each dataset has a typical error of 10%, and the uncertainty in flux density of the GB6 is 7%. The constant noise term of GB6 is expected to contribute for only 2% for the faintest sources in the sample. Note that the flat spectrum sources seem to be only slightly variable, compared to the data at 1.4 GHz, although flat spectrum sources are known to be increasingly variable towards higher frequencies. This is due to the fact that the time-baseline at 5 GHz (∼ 1 year) is much shorter than at 1.4 GHz (∼ 10 years).

It is difficult to estimate the completeness and reliability of JVAS and JVAS++, due to all the effects described above. Most of the differences between the two samples are not caused by incompleteness or unreliability of JVAS, but due to a difference in selection criteria. To assess the completeness of JVAS and JVAS++, we performed a simple simulation. We treated the NVSS and GB6 data as infinitely accurate and added Gaussian distributed offsets (with σ's as estimated above) to the flux densities, and determined how many sources enter and leave the sample. In this way, the completeness and reliability of JVAS++ were estimated both to be 95% respectively. For JVAS, we changed the selection criteria to $\alpha_{1.4-5GHz} > -0.58$ and $S_{5GHz} > 180$ mJy after the offsets were added, to mimic the use of a different flux density scale. In addition it was assumed that all the sources with $S < 160$ mJy were added artificially in JVAS to fill in holes in the sky distribution (∼100 objects). In this way the completeness and reliability of JVAS was estimated to be 90% and 70% respectively.⋆

3 THE AUTOMATED OPTICAL IDENTIFICATION PROCEDURE

⋆ Note that all the sources in JVAS are real and that their positions are reliable

3.1 The APM − POSS-I catalogue

Optical identification of sources in the JVAS and JVAS++ samples was carried out using the output catalogue of the APM scans of the Palomar Sky Survey (POSS-I) photographic plates in the e (red) and o (blue) passbands (Bunclark & Irwin, 1983). Plates were scanned with $\sim 0.5''$ pixels. The APM covers the Northern sky with $|b| \geq 20^\circ - 30^\circ$. For each detected object a magnitude was measured and the image classified for the e and o plates separately. The images were classified as galaxies, stellar, merged objects or noise based on combinations of various image parameters such as moments, ellipticities etc. The spread in the distribution of each parameter with respect to the stellar locus was used to weight that parameter when combined to form a final classification parameter. The distribution of the combined parameter has a mean and spread which is dependent on magnitude, and a statistical correction was calculated to convert these for the stellar objects to Gaussian distributions with zero mean and rms=1. This correction was then applied to all images and the standard deviation from a stellar profile $N\sigma_c$ was recorded. For images about 2 magnitude above the plate limit, this classification is $\sim 90\%$ accurate.

The e and o catalogues were merged, assuming that sources within $2''$ are one and the same object. Objects with centroids on the e and o plates which differ in position between 2 and $4''$ were considered to be "nearly" matches. In such case only the position on the E plate were preserved. The final positions of the objects were corrected for subtle distortions of the plates which are most prominent near the plate edges.

The zero-point for photometry in each field was calculated by assuming that the e plate has a limiting magnitude of 20.0 and by assuming a universal, magnitude independent position in the colour-magnitude plane for the stellar locus, as described by McMahon & Irwin 1992. The zero-point of the magnitude system has an rms accuracy of 0.3 magnitude.

The APM − POSS-I catalogue can be accessed via the internet at *www.ast.cam.ac.uk/∼apmcat*.

3.2 The optical-radio correlation

Three source lists were constructed:

I: Sources which are part of both JVAS++ and the JVAS sample (762 objects)
II: Sources which are only part of JVAS++ (153 objects)
III: Sources which are only part of JVAS (371 objects)

Hence, the combination of sources in lists I and II make up JVAS++, and the sources in lists I and III make up the JVAS sample (in the selected area of sky). The three lists were correlated with the APM−POSS-I catalogue, selecting all optical objects within $30''$ of each 8.4 GHz radio position. For the objects with extended radio structure at arcminute scales, the radio-optical overlays, as shown in the appendix, were used to search for a possible bright optical identification. These were added manually. The distributions of $\Delta\alpha_{opt-rad}$ and $\Delta\delta_{opt-rad}$ are shown in figure 5, for sources in the JVAS++ sample, excluding objects which exhibit multiple components at 8.4 GHz and/or extended structure at arcminute scales. From these plots the accuracy of the APM positions was determined, by fitting the $\Delta\alpha$ and $\Delta\delta$ distributions with a Gaussian on top of a flat distribution, as expected for a combined population of genuine identifications and random background objects. It shows that the APM positions have an uncertainty of rms=$0.4''$ in both α and δ, and show no systematic offsets to the radio positions.

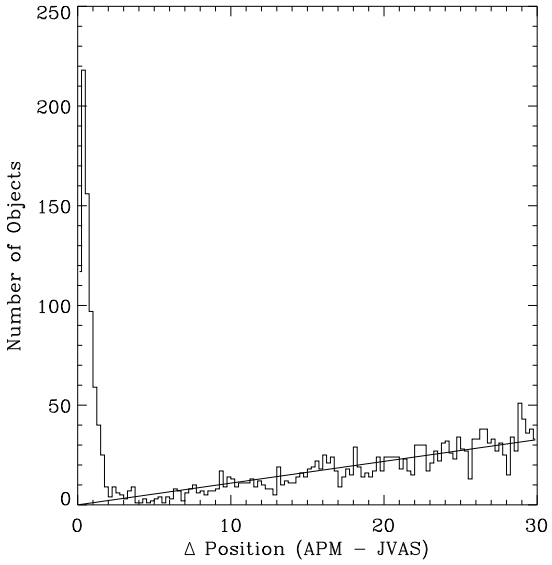

Figure 6. The offsets between the JVAS++ positions and the optical APM positions. The solid line indicates a fit to the background source density of 0.0006 arcsec^{-2}.

Figure 6 shows the distribution of sources around the JVAS++ positions. The solid line is a fit to the background source density of 0.0006 arcsec^{-2}. We found that this background level was not enhanced by possibly related cluster objects around the radio sources, by counting the number of objects within a $30''$ radius, offset $5'$ north from each source. It is therefore expected that $\sim 2\%$ of the sources have a random background object within 3 arcsec from their radio position. Such a background object will be incorrectly identified as the optical identification unless the genuine identification is detected and has an APM position closer to the radio position.

Unfortunately, for several reasons the errors in the optical positions are not Gaussian distributed, as assumed above:

1 **Bright galaxy identifications:** The central positions of bright extended objects, e.g. nearby galaxies, can be determined significantly less accurate in the APM than those of fainter stellar objects.

2 **Merged Objects:** Due to the limited resolution of the APM scans, two or more nearby sources are sometimes merged into one single object. In such a case, the central position of the merged object can be several arcseconds away from the position of one of the individual objects (i.e. the identification).

3 **Bright Stars:** Bright Stars, can obliterate other objects in their vicinity, or can produce spurious images.

4 **Anomalies in the APM Catalogue:**. In very rare cases the APM can produce nonsensical results unrelated to

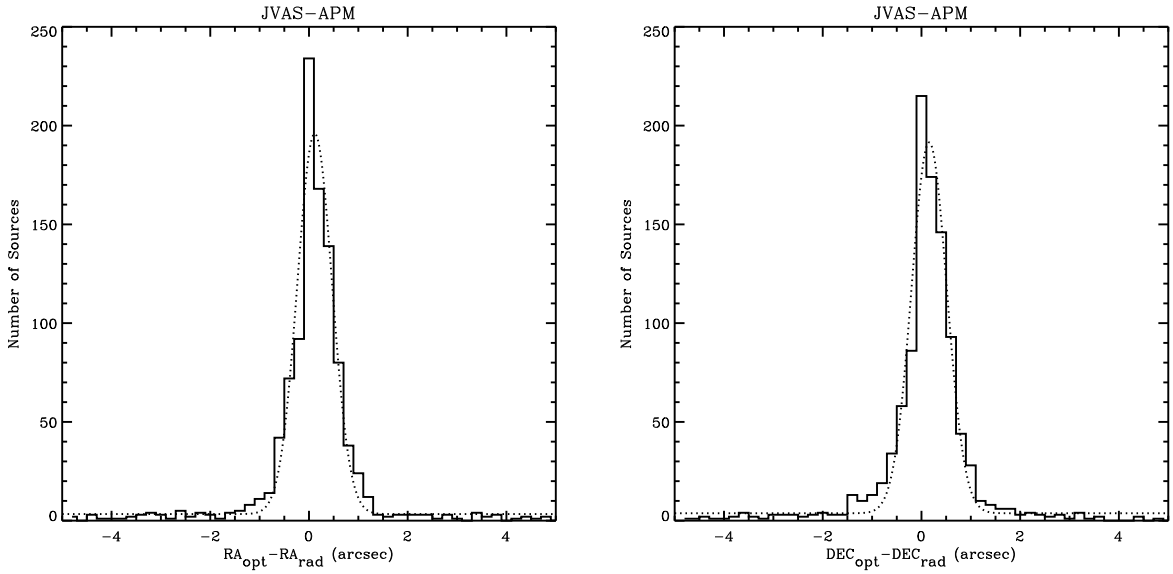

Figure 5. The distribution of $\Delta\alpha_{opt} - \alpha_{rad}$ and $\Delta\delta_{opt} - \delta_{rad}$, for all the optical objects to a radio position of a JVAS++ source.

any of the former effects, e.g. plate defects such as dirt and scratches, aeroplane tracks and asteroids.

These effects produce a broad non-Gaussian tail in the error distribution at a $\sim 5-10\%$ level. To identify these problems for the individual objects, all the APM images were checked by eye and compared with images from the Digital Sky Survey as retrieved from Skyview. In the course of this process the images were also searched for possible surrounding groups or clusters of galaxies. In addition, if no identification in the APM was found, it was checked whether a possibly faint identification was visible in the DSS. All the JVAS and JVAS++ sources which were found to have one of these problems are shown in the appendix.

3.3 Completeness and reliability of the optical identifications

The likelihood method (de Ruiter, Arp and Willis, 1977) was used to quantify the identification procedure. First, for each candidate identification the following dimensionless measure of the uncertainty in position difference, r, was calculated:

$$r = \sqrt{\frac{\Delta\alpha^2}{\sigma^2_{\alpha opt}} + \frac{\Delta\delta^2}{\sigma^2_{\delta opt}}} \qquad (1)$$

where $\Delta\alpha$ and $\Delta\delta$ are the offsets between the optical and radio positions, and $\sigma_{\alpha opt}$ and $\sigma_{\delta opt}$ the uncertainties in the optical right ascension and declination positions. The error in the radio position is small $< 0.05''$ compared to the optical error ($0.55''$) and therefore neglected. Given the normalised position difference r for a certain radio-optical pair, the likelihood ratio is defined by (de Ruiter, Arp and Willis, 1977)

$$LR(r) = \frac{dp(r|id)}{dp(r|c)} = \frac{r\ e^{\frac{-r^2}{2}}}{2\lambda\ r\ e^{-\lambda r^2}} = \frac{1}{2\lambda} e^{\frac{r^2(2\lambda-1)}{2}} \qquad (2)$$

where $\lambda = \pi\sigma_{\alpha opt}\sigma_{\delta opt}\rho_{bg} = 0.5\rho_{bg}$, where ρ_{bg} is the background source density which is stored for each POSS-plate in APM calibration files. This is the ratio of the probability that a given object found between r and $r+dr$ is the correct identification $p(r|id)$, divided by the probability that it is a contaminating object $p(r|c)$. The cumulative distribution of likelihood ratios is shown in figure 7.

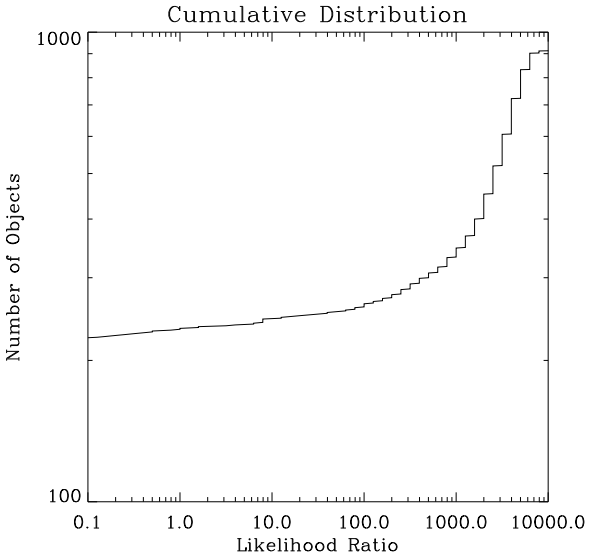

Figure 7. The cumulative distribution of likelihood ratios for the complete sample.

The likelihood ratio cutoff used for this sample is 1.0 which means the probability that the given object is the correct identification is at least equal to the probability that it is a background object. Using this cutoff we find an identification rate, θ, of 83% (i.e. 756 out of 915). This identification fraction can be related to the two *a posteriori* probabilities that the object found at an angular distance r from the radio source position is a genuine identification, $p(id|r)$, or a confusing object, $p(c|r)$, using Bayes' theorem

$$p(id|r) = \frac{\theta\ LR(r)}{\theta\ LR(r) + 1 - \theta} \qquad p(c|r) = \frac{1}{\theta\ LR(r) + 1 - \theta} \quad (3)$$

It was assumed that the sources which were found to be merged objects or bright galaxies have an infinite likelihood ratio, resulting in $p(id|r) = 1$ and $p(c|r) = 0$. The likelihood ratios of the objects, for which the manual check has shown they have a genuine optical identification but a large radio-optical position offset, are set to 2×10^3, as if the offset was zero, and therefore as 100% reliable identifications. The completeness, C, of the identifications, which is the number of accepted identifications over the number of correct id's, and the reliability, R, which is the fraction of identified sources for which the identification is correct, are given by:

$$C = 1 - \left(\sum_{L<1} p(id|r)\right)/N_{id} \quad (4)$$

$$R = 1 - \left(\sum_{L>1} p(c|r)\right)/N_{id} \quad (5)$$

where, N_{id} is the total number of identifications. These correspond to a completeness $C = 99\%$ and a reliability $R = 99\%$ for LR≥ 1 used.

4 RESULTS AND DISCUSSION

Three tables were produced for the three source lists, which are shown in the appendix, with a detailed description of the columns.

4.1 Radio spectral properties and optical identifications

The JVAS++ sample is uniquely suited to study the high luminosity end of the flat spectrum radio source population. Figure 8 shows the e-magnitudes of the optical identifications as function of their $o - e$ colours, classified as stellar (filled circles) and extended (open circles) objects on the red plates. Objects with only limits on the colours are not shown. The colours of the extended objects are more biased towards the red than those of the stellar identifications, as expected for quasars and galaxies, which are found to have generally blue and red optical colours respectively, This can also be seen in figure 9 where the colour-distribution of the two classes of objects are shown. Only at $e > 19$, near the plate limit, does this picture get blurred, since no reliable classification can be made and the large majority of objects are classified as stellar.

Figure 10 shows the optical identification fraction as function of GB6 flux density. The upper line indicates the total identification fraction (including extended, stellar and merged objects). The middle line indicates the fraction of JVAS++ sources identified with APM objects classified as stellar in the red band. The lower line indicates the fraction of JVAS sources identified with APM objects classified as extended in the red band. There is a hint that both the total and stellar identification fraction decrease with decreasing flux density. These two effects are likely caused by a change-over to galaxy identifications at faint flux density levels, which leads to more loss against the plate limit. A similar effect at a similar flux density level has been seen by Shaver et al. (1997) and Falco, Kochanek & Muñoz (1998). Note that due to the uncertain classification near the plate limit, the true decrease in identification fraction for quasars with flux density may even be more pronounced.

Figure 11 shows the optical identification fraction as function of 5.0 to 1.4 GHz spectral index. The lines indicate the specific identification fractions as in figure 10. Clearly, the total and stellar identification fractions decrease towards steeper spectral indices, while the fraction of sources identified with extended objects appears to be independent of spectral index. This trend can be explained by assuming that

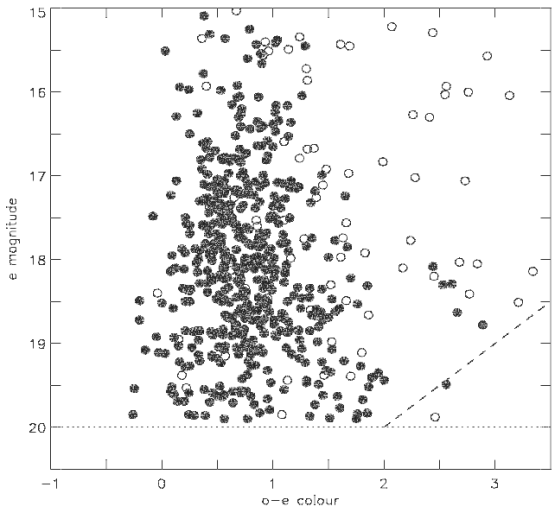

Figure 8. The red e magnitude as function of $o - e$ colour for extended (open circles) and stellar (filled circles) identifications. The dotted and dashed lines indicate the limit in e magnitude and the average limit in o magnitude (which differs per plate) respectively.

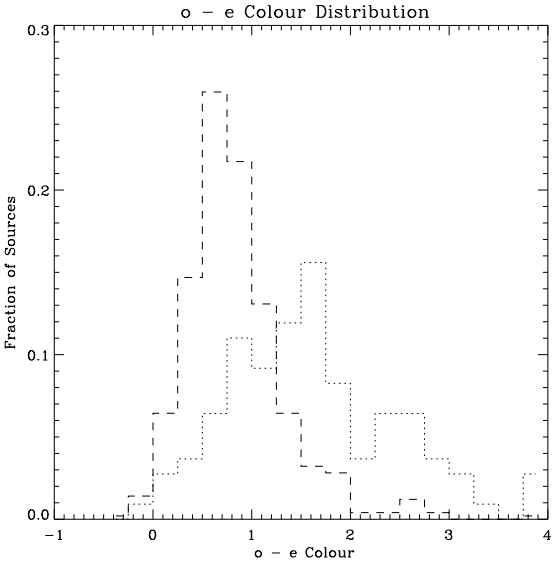

Figure 9. The normalised $o - e$ colour distribution for the JVAS++ identifications. The dashed and dotted lines represent the stellar and the extended objects respectively.

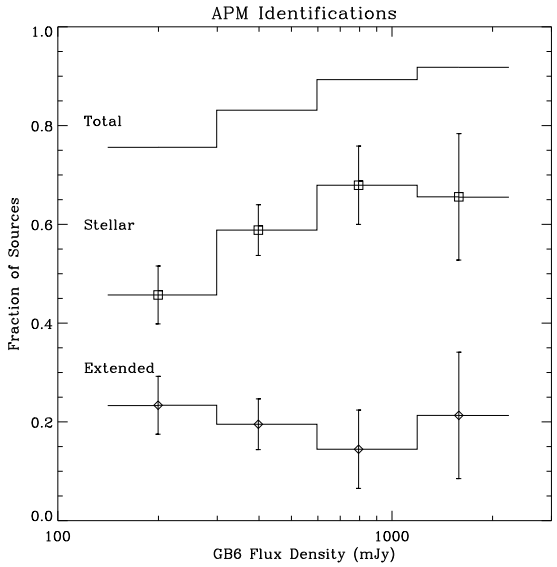

Figure 10. The fraction of JVAS++ sources identified with APM objects (total), APM objects classified as stellar and classified as extended in the red band, as function of GB6 flux density. The uncertanties for the total sample are similar to those for the stellar objects.

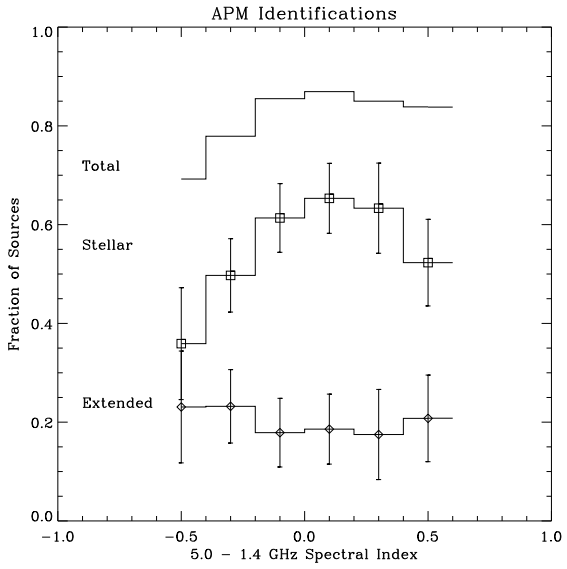

Figure 11. The fraction of JVAS++ sources identified with APM objects (total), APM objects classified as stellar and classified as extended in the red band, as function of 8.4-1.4 GHz spectral index.

at $\alpha < -0.3$, the unbeamed population of 'steep' spectrum galaxies contributes significantly to the total radio source population. Most of these radio galaxies will be too faint to appear on the POSS, and will be unidentified radio sources. This results in a drop in the total identification fraction and the identification fraction of quasars.

For the optical identifications with available redshifts in the literature, the $o-e$ colours are shown as function of redshift (figure 12). This figure should be interpreted with great care, since it includes a strong observational bias, e.g.

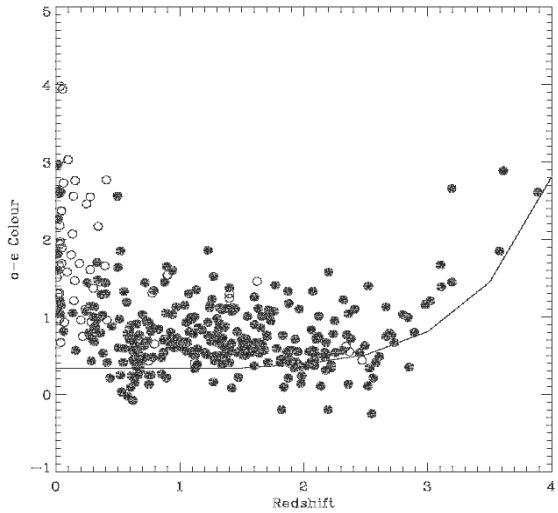

Figure 12. The $o-e$ colour of extended (open circles) and stellar (filled circles) objects as function of redshift, for all sources with an available redshift.The solid line indicates the expected $o-e$ colour of an average quasar reddened by intergalactic absorption (see text).

towards bright galaxies and red quasars. Therefore, not surprisingly, most of the extended optical objects (galaxies) are observed to be at $z < 0.5$. They are clearly redder than the stellar objects at similar redshifts. Note however that a few objects which are classified as extended, are found at much larger redshifts. Their optical spectra show that they are actually quasars, wrongly classified as extended objects in the APM. There is a clear trend that the optical colours of the quasars become redder towards high redshifts. This is a well known effect and the forms the basis of the colour selection of candidate high redshift quasars (Hook et al. 1996), and is due to intervening Lyα absorption systems. Note however, that the majority of the objects in this redshift regime was actually selected for spectroscopic follow up on the basis of their red colour ($o-e \geq 1.0$), which may have strengthen this effect. The solid line indicates the expected $o-e$ colour of an average quasar reddened by intergalactic absorption. As a quasar spectrum, a power law with spectral index of -0.5 was used with emission lines taken from the composite quasar spectrum as constructed by Francis et al. (1991). For the intergalactic absorption the model of Madau (1995) was used. The model follows the trend of redder colours towards high redshift well. At low redshift the data are systematically redder than the model. This is probably due to a contribution of underlying galaxy light.

It is interesting to investigate the relation between the optical apparent magnitude of a quasar and its radio flux density, since both should be related to the power output of the central engine. Bolton & Wall (1970) showed that objects at fainter flux densities tend to have fainter optical magnitudes, but that there is a large spread. This trend is also present in figure 13 (left), where the e-magnitude is shown as function of 5 GHz flux density for sources which are classified as stellar on the red plates, and which have a blue $o-e < 1.0$ colour. This can also be seen in figure 14, where for the same subsample, the magnitude distributions

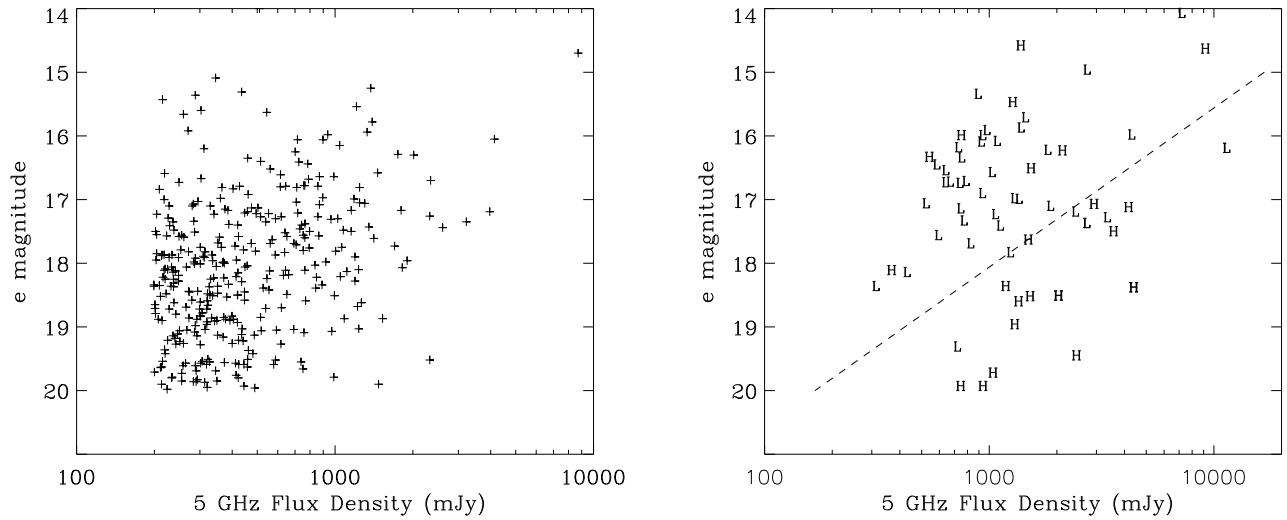

Figure 13. (left) The e magnitude versus of 5.0 GHz flux density for radio sources identified with blue $o - e < 1.0$ stellar objects. (right) The e magnitude versus of 5.0 GHz flux density for radio sources in the sample, which have optical polarisation measurements in the literature, with 'L' and 'H' denoting low and high polarisation quasars. Objects at $z < 0.5$ have been omitted. The dotted line indicates an optical-to-radio spectral index of -0.75.

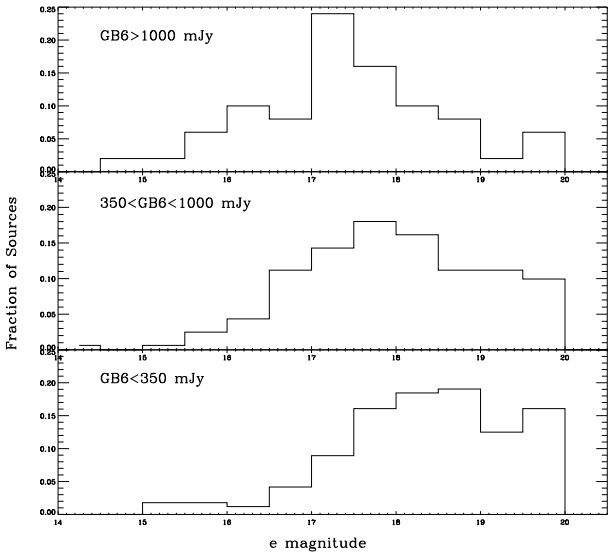

Figure 14. The magnitude distributions for bright (GB6>1 Jy), intermediate (350 mJy > GB6 >1 Jy), and faint (GB6 < 350 mJy) radio sources, optically identified with blue $o - e < 1.0$ stellar objects.

are shown for bright (GB6>1 Jy), intermediate (350 mJy > GB6 >1 Jy), and faint (GB6 < 350 mJy) radio sources.

It is interesting to investigate what may cause this large spread in the ratio of optical to radio luminosity. We noticed that many of the optically faintest quasars were known to be High Polarised Quasars (HPQ); objects which exhibit optical polarisation at levels > 3%. In the right panel of figure 13 the e magnitude versus 5 GHz flux density is shown for objects in the sample which have their optical polarisation properties studied by Fugmann & Meisenheimer (1988) or Wills et al. (1992). Indeed, it shows that the HPQ ('H') prefer to have high radio to optical flux ratios while the low polarised quasars (LPQ; 'L') show low ratios. Objects at $z < 0.5$ were excluded from this plot, to avoid possible host galaxy contamination, and to exclude the population of nearby BL Lac objects and optically violent variable (OVV) quasars which also show high optical polarisation, but often combined with low or rapidly varying radio to optical flux density ratios.

The distribution of HPQs and LPQs is consistent with the idea that the optical quasar light is a combination of a polarised synchrotron component plus an unpolarised component (e.g. Smith et al. 1994). If the unpolarised component is significantly brighter than the synchrotron component (LPQ), then the radio flux (also synchrotron) will be relatively faint compared to the optical, resulting in a 'flat' optical to radio spectral index. If the unpolarised component is fainter (HPQ), and a constant spectral index is assumed for the synchrotron component, then the radio flux will be relatively bright, resulting in an overall 'steep' radio-to-optical spectral index. Indeed, the dashed line in figure 13 (right) indicates an optical-to-radio spectral index of -0.75, with most of the LPQs and HPQs situated above and below this line respectively.

The most straightforward explanation of why the ratio of the polarised to unpolarised components varies so much from quasar to quasar is Doppler boosting of the synchrotron component (eg. Wills et al. 1992). We therefore hypothesise that the large spread in optical to radio luminosity ratios is caused by source to source variations of Doppler boosting of the radio flux, leaving the unpolarised component of the optical emission unaffected. The fact that in our sample we see the HPQs fainter than the LPQs is counter-intuitive since these are the boosted objects. However, in this scheme, the HPQs are not the boosted counterparts of the LPQs in the sample, but are the boosted counterparts of a population which is fainter in the optical and radio. If this explanation is

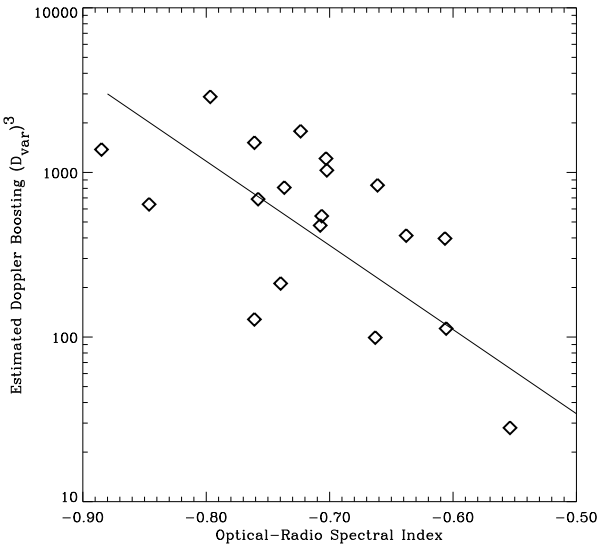

Figure 15. The Doppler boosting, estimated by Lähteenmäki & Valtaoja (1999) as function of radio to optical spectral index, for bright JVAS sources. The line indicates the expected relation if the change in spectral index is due to Doppler boosting of only the radio emission, leaving the optical unaffected.

correct, then a correlation is expected between the Doppler factor and the optical to radio spectral index. Lähteenmäki & Valtaoja (1999) estimated the Doppler factors of eighty of the brightest flat spectrum objects in the sky, using total flux density variation monitoring data at 22 and 37 GHz. Thirty-nine objects in their sample overlap with JVAS. Nineteen of those are located at $z > 0.5$, and have APM identifications with $o - e < 1.0$ (to avoid possible influence of the host galaxy and extinction). For the optical and radio flux densities, the average of o and e magnitudes, and the average of 1.4, 5.0 and 8.4 GHz flux densities are used, to minimise the influence of variability. The estimated Doppler boosting, D^3_{var}, is plotted against the optical-to-radio spectral index in figure 15. It shows that the Doppler factor is indeed correlated (97% significance) with the radio-to-optical spectral index, and that the slope of the relation is as expected as for the hypothesis that the large spread in optical to radio luminosity ratios is caused by source to source variations of Doppler boosting of the radio flux leaving most of the optical emission unaffected. Evidently, this scheme is too simplistic. First of all, the spectral index of the synchrotron component is most likely steeper in the optical than in the radio, causing the boosting to be stronger in the optical than in the radio, changing the observed optical-to-radio spectral index of the synchrotron component. Furthermore, in the optical we may see a related, but younger part of the synchrotron component, which possibly exhibits different boosting properties, complicating the simple picture scetched above.

However, the main idea is supported by two previous studies. Firstly, Yee & Oke (1978) and Shuder (1981) showed that the emission line luminosity for a range of AGN types is proportional to the luminosity of the underlying optical continuum over four orders of magnitude. Secondly, Rawlings & Saunders (1991) found that the emission line luminosity of an unbiased sample of FRII radio galaxies is approximately proportional to the total jet kinetic power, which is closely coupled to the power of the central engine. This implies that the optical luminosity should also be a direct indicator of the jet power, hardly affected by Doppler boosting. Indeed, Wills & Brotherton (1995) use the ratio of the radio core to optical continuum luminosity, R_V, which is the equivalent to the radio-optical spectral index as used in this paper, as an improved measure of quasar orientation over the ratio of radio-core to lobe flux density, R. They show that the use of R_V, rather than R, results in a significantly improved inverse correlations with the beaming angle as deduced from apparent superluminal velocities and inverse-Compton-scattered X-ray emission, and with the FWHM of a quasar's broad Hβ emission line. The use of optical continuum luminosity rather than extended radio luminosity to represent the unbeamed jet power probably works better because the latter is more affected by source-to-source differences in the intergalactic medium (Wills & Brotherton, 1995), and source age.

5 SUMMARY

We have described the automated optical identification procedure of the sources from the Jodrell Bank − VLA Astrometric Survey (JVAS), and a similar, complete radio sample, JVAS++, using the APM scans of the POSS-I plates. It yields an identification rate of 83%, with a completeness and reliability of both 99%. About 20% is identified with extended objects, eg. galaxies. The identification rate appears to drop towards lower flux densities, and towards steeper radio spectra, especially for the stellar classifications. Furthermore, the optical fluxes of quasars with faint radio flux densities appear to be biased towards fainter magnitudes, although there is a large spread in the optical-to-radio spectral index. It is shown that this large spread in radio-to-optical spectral index may be caused by source to source variations in the Doppler boosting of the synchrotron emission.

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APPENDIX A

Tables 2,3, 4 show the optical-radio catalogue for the source lists I, II, and III, as defined in section 2. For each table, column 1 gives the name (JVS=JVAS, CLS=CLASS), columns 2 the radio position (J2000), columns 3, 4, and 5 give the optical-radio offset in right ascension, declination and in total. Column 6 gives the logarithm of the likelihood ratio. Columns 7 to 12 give the APM magnitude, classification (-1=stellar, 1=extended, 2=merged) and psf for the red and blue plate respectively. Column 13 gives the APM colour, columns 14, to 17 give the radio flux densities at 5 GHz (GB6), 1.4 GHz (NVSS and GB1400), and at 8.4 GHz (JVAS). Column 18 gives the redshift as found in the NASA/IPAC Extragalactic Database (NED). Column 19 gives a possible comment. The comments are explained in table 4. The optical parameters are not shown if $\Delta\alpha, \Delta\delta > 3.0''$, unless the check by eye has shown that a larger optical-radio position offset is the result of a bright galaxy or a merged object identification, or due to extended radio emission.

Figure 17 show all the sources for which the APM did not give a good representation. The three panels show $4' \times 4'$ representations of the Digitized Sky Survey, The APM-red, and the APM blue data. The number in the left corner indicates the optical-radio position offset.

Figure 16 shows contour plots of NVSS data of objects in the complete sample showing extended structure on arcminute scale. The greyscales represent optical Digitized Sky Survey data. Image sizes are 12'. The dashed circle indicate a 70" radius around the GB6 position.

Figure 16 (gif) to go here

Figure 16. Extended radio sources in the complete sample.

Figure 17 (gif) to go here

Figure 17. All the JVAS sources with anomalies in the APM data.

table 2 can be found at www.roe.ac.uk/ ignas

Table 2.

table 3 can be found at www.roe.ac.uk/ ignas

Table 3.

table 4 can be found at www.roe.ac.uk/ ignas

Table 4.

Table 5. Explanation of the comments in tables 2, 3, and 4.

Code	Comment
a	Blended Object
b	Bright Galaxy
c	Possible ID on DSS?
d	Group/Cluster?
e	Bright Star nearby
f	ID not Possible
g	wrong representation in APM
h	Possible Blended Object?
i	ID is Correct
j	Offset in Red Plate
k	Blended Object in Blue
l	Blended Object in Red
m	Red and Blue APM are shifted
n	Bright Galaxy Nearby
o	DSS not Uniform
p	NVSS extended
q	NVSS several components
r	NVSS Wide angle tail
s	NVSS Double
t	NVSS triple
u	Radio Source is Lobe

Table 1. Sourcelist I

J2000	Position (J2000)		Opt-Rad Offset			Log	APM Red			APM Blue			Color	GB6	NVSS	GB1.4	VLA	z	Com
Name	α	δ	$\Delta\alpha$	$\Delta\delta$	Δr	lhr	mag	cls	psf	mag	cls	psf	mag	mJy	mJy	mJy	mJy		
(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
JVS0001+1914	00 01 08.622	+19 14 33.82	0.26	-0.12	0.29	3.6	>20.00	–	–	22.16	-1	0.4	< 2.16	233	265	269	387	3.1000	
JVS0003+2129	00 03 19.350	+21 29 44.43	-0.04	0.69	0.69	3.0	>20.00	–	–	21.64	-1	-0.5	< 1.64	293	83	–	258		
JVS0005+0524	00 05 20.216	+05 24 10.80	0.18	0.44	0.48	3.6	16.67	-1	-1.1	17.07	-1	-1.3	0.40	303	126	142	235	1.8870	
JVS0006+1235	00 06 23.057	+12 35 53.10	-0.19	-0.13	0.23	3.8	16.84	-1	2.1	17.55	-1	-0.4	0.71	209	240	174	161	0.9800	
JVS0009+0628	00 09 03.933	+06 28 21.24	-0.23	0.20	0.30	3.8	19.26	-1	0.3	>22.21	–	–	> 2.95	259	249	289	202		
JVS0009+1803	00 09 34.862	+18 03 43.04	0.01	-0.03	0.03	3.7	15.92	-1	1.3	16.60	-1	2.5	0.68	270	261	254	66	0.3100	
JVS0010+1058	00 10 31.007	+10 58 29.51	-0.36	-0.62	0.72	2.9	13.83	1	14.6	15.41	1	8.3	1.58	435	98	300	44	0.0893	
JVS0010+1724	00 10 33.992	+17 24 18.79	0.23	-0.05	0.24	3.6	16.64	-1	0.8	17.54	-1	-0.0	0.90	989	917	825	884	1.6010	
JVS0011+0823	00 11 35.270	+08 23 55.59	-0.15	-0.54	0.56	3.4	19.26	-1	-0.4	20.10	-1	-0.8	0.84	400	625	539	365		
JVS0013+1910	00 13 56.378	+19 10 41.94	0.02	-0.33	0.33	3.5	17.77	-1	1.8	19.33	-1	-0.2	1.56	244	161	–	388		
JVS0019+2021	00 19 37.854	+20 21 45.57	–	–	–	-9.9	>20.00	–	–	>21.66	–	–	–	710	983	535	1185		
JVS0019+2602	00 19 39.781	+26 02 52.35	0.18	0.08	0.20	3.5	15.31	-1	0.8	15.74	-1	0.0	0.43	435	696	708	472	0.2840	
JVS0022+0608	00 22 32.441	+06 08 04.26	0.50	-0.43	0.66	3.1	18.74	-1	0.2	19.88	-1	-0.4	1.14	243	339	545	322		
JVS0027+2241	00 27 15.373	+22 41 58.18	-0.33	-0.35	0.48	3.3	15.93	1	4.2	16.33	1	3.1	0.40	299	293	288	319	1.1190	
JVS0028+2000	00 28 29.820	+20 00 26.77	-0.05	-0.45	0.45	3.4	18.46	-1	2.1	19.72	-1	-0.6	1.26	309	286	190	213		
JVS0028+0757	00 28 45.991	+07 57 59.30	–	–	–	-9.9	>20.00	–	–	>22.23	–	–	–	203	188	146	145		
JVS0029+0509	00 29 03.592	+05 09 34.86	0.15	-0.02	0.15	3.7	18.14	-1	-0.9	19.25	-1	-1.1	1.11	377	445	379	234	1.6330	
JVS0029+0554	00 29 45.896	+05 54 40.69	0.01	-0.25	0.25	3.7	18.25	-1	-1.5	18.68	-1	2.6	0.43	330	293	388	381	1.3170	
JVS0034+2126	00 34 16.841	+21 26 41.50	–	–	–	-9.9	>20.00	–	–	>21.66	–	–	–	222	334	346	165		
JVS0034+2754	00 34 43.488	+27 54 25.78	-0.08	-0.06	0.10	3.5	17.87	-1	0.2	18.85	-1	-2.3	0.98	587	827	899	451		
JVS0035+1438	00 35 44.090	+14 38 01.98	0.14	-0.07	0.16	3.8	18.50	-1	-0.2	19.04	-1	-1.4	0.54	328	297	184	184		
JVS0036+1434	00 36 35.110	+14 34 03.63	–	–	–	-9.9	>20.00	–	–	>21.79	–	–	–	203	259	286	193		
JVS0037+1109	00 37 26.042	+11 09 50.91	-0.63	0.05	0.63	3.2	19.37	-1	0.0	>21.79	–	–	> 2.42	462	235	263	232		
JVS0039+1411	00 39 39.620	+14 11 57.56	-0.11	0.30	0.32	3.7	19.80	-1	1.3	>21.79	–	–	> 1.99	422	266	212	386		
JVS0041+3211	00 41 15.936	+32 11 07.58	–	–	–	-9.9	>20.00	–	–	>22.03	–	–	–	278	413	362	218		c
JVS0042+2320	00 42 04.548	+23 20 01.16	-0.41	0.26	0.49	3.3	>20.00	–	–	22.01	1	2.9	< 2.01	1604	1269	909	896		
JVS0042+1009	00 42 44.371	+10 09 49.19	–	–	–	-9.9	>20.00	–	–	>22.03	–	–	–	250	232	167	270		
JVS0046+2456	00 46 07.829	+24 56 32.61	-0.19	0.13	0.23	3.6	17.38	1	3.2	17.81	-1	-2.4	0.43	206	168	–	197	0.7467	
JVS0047+2435	00 47 43.875	+24 35 16.07	-2.28	-1.02	2.50	-5.7	>20.00	–	–	21.90	2	5.9	< 1.90	317	268	324	273		
JVS0048+3157	00 48 47.144	+31 57 25.09	-0.70	0.54	0.88	2.4	9.48	-1	2.0	11.30	1	9.8	1.82	302	292	270	284	0.0150	b,d
JVS0048+0640	00 48 58.722	+06 40 06.45	0.04	-0.37	0.37	3.7	19.83	-1	0.8	21.68	-1	-0.8	1.85	211	205	218	106	3.5800	
JVS0049+0237	00 49 43.236	+02 37 03.78	0.14	-0.12	0.18	3.8	18.44	-1	-0.6	19.17	1	5.3	0.73	294	425	396	525		
JVS0056+1625	00 56 55.295	+16 25 13.34	0.09	0.10	0.13	3.8	18.05	-1	0.7	18.94	-1	-1.5	0.89	347	124	409	602		
JVS0057+3021	00 57 48.887	+30 21 08.84	2.41	1.00	2.61	-6.7	>20.00	–	–	10.42	1	7.2	<-9.58	914	1374	1587	689	0.0165	b,g
JVS0058+0620	00 58 33.806	+06 20 06.08	–	–	–	-9.9	>20.00	–	–	>21.82	–	–	–	222	90	–	192		
JVS0101+1639	01 01 57.720	+16 39 40.96	–	–	–	-9.9	>20.00	–	–	>21.82	–	–	–	214	255	189	204		
JVS0103+1526	01 03 26.002	+15 26 24.67	0.30	-0.15	0.34	3.7	17.02	1	10.2	19.30	1	5.2	2.28	199	232	216	131		
JVS0106+1951	01 06 52.632	+19 51 02.57	–	–	–	-9.9	>20.00	–	–	>22.00	–	–	–	203	101	–	140		
JVS0107+3224	01 07 24.959	+32 24 45.21	4.18	9.63	10.50	-9.9	8.75	1	10.2	10.05	1	5.3	1.30	1054	1167	4647	93	0.0170	b,a
JVS0107+1312	01 07 45.962	+13 12 05.19	-0.24	-0.15	0.28	3.7	>20.00	–	–	21.12	-1	-1.7	< 1.12	215	239	–	175		
JVS0107+2611	01 07 47.882	+26 11 08.64	–	–	–	-9.9	>20.00	–	–	>21.93	–	–	–	344	189	290	323		
JVS0108+0135	01 08 38.771	+01 35 00.32	-0.39	0.40	0.56	3.4	18.45	2	3.3	18.73	-1	-1.0	0.28	4180	2620	4039	2337	2.0990	
JVS0112+2244	01 12 05.821	+22 44 38.80	-0.85	-0.35	0.92	2.4	14.59	-1	-0.1	15.63	-1	-1.2	1.04	304	385	299	498		
JVS0112+3208	01 12 50.328	+32 08 17.54	0.02	0.11	0.11	3.6	17.95	-1	-0.1	18.04	-1	2.1	0.09	415	684	787	385	0.6030	
JVS0113+0222	01 13 43.145	+02 22 17.32	0.41	-0.26	0.49	3.5	13.56	1	11.0	15.45	2	31.9	1.89	608	530	501	639	0.0470	b

Table 1. Sourcelist I, continued...

J2000	Position (J2000)	Opt-Rad Offset			Log	APM Red			APM Blue			Color	GB6	NVSS	GB1.4	VLA	z	Com
Name	α δ	$\Delta\alpha$	$\Delta\delta$	Δr	lhr	mag	cls	psf	mag	cls	psf	mag	mJy	mJy	mJy	mJy		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
JVS0116+2422	01 16 38.068 +24 22 53.72	–	–	–	-9.9	>20.00	–	–	>21.91	–	–	–	466	263	206	226		
JVS0117+1418	01 17 25.204 +14 18 12.43	-0.33	-0.07	0.34	3.7	19.06	-1	-0.2	19.94	-1	0.2	0.88	250	172	190	226		
JVS0119+3210	01 19 34.999 +32 10 50.02	3.41	1.68	3.80	-9.9	6.45	1	10.5	9.18	2	19.6	2.73	1609	2635	2826	1087	0.0600	b,a
JVS0121+1149	01 21 41.595 +11 49 50.41	-0.26	-0.22	0.34	3.7	18.43	-1	0.2	19.62	-1	2.0	1.19	1126	1184	1059	1585	0.5700	
JVS0121+0422	01 21 56.862 +04 22 24.74	-0.01	-0.30	0.30	3.7	19.03	-1	-0.8	19.18	-1	-0.9	0.15	1235	1065	922	1519	0.6370	
JVS0122+2502	01 22 38.813 +25 02 31.78	0.14	-0.08	0.16	3.6	17.60	-1	-0.1	17.97	-1	-1.2	0.37	764	714	594	698	2.0250	
JVS0123+2615	01 23 43.043 +26 15 22.41	-0.19	0.13	0.23	3.6	17.56	-1	-0.9	18.03	-1	-0.3	0.47	255	183	171	214	0.8490	
JVS0124+2805	01 24 55.877 +28 05 11.35	-0.13	-0.15	0.20	3.5	18.19	-1	-1.9	-18.41	-1	-1.0	-36.60	248	212	166	224	0.7100	
JVS0126+2559	01 26 42.791 +25 59 01.28	-0.10	-0.11	0.15	3.6	17.06	-1	-1.7	17.19	2	11.6	0.13	1303	1002	857	901	2.3580	k
JVS0137+3122	01 37 08.732 +31 22 35.79	-0.88	-0.44	0.98	2.1	>20.00	–	–	21.64	-1	-1.9	< 1.64	447	416	491	438		
JVS0139+1753	01 39 41.980 +17 53 07.54	0.27	-0.50	0.57	3.3	18.43	2	7.4	19.29	-1	-0.6	0.86	301	427	470	260	2.7300	
JVS0143+1215	01 43 31.093 +12 15 42.95	-0.37	0.02	0.37	3.7	19.71	-1	-1.4	20.35	-1	0.5	0.64	200	302	327	105		
JVS0145+2319	01 45 52.906 +23 19 19.27	–	–	–	-9.9	>20.00	–	–	>21.41	–	–	–	245	356	238	234		
JVS0147+2115	01 47 53.823 +21 15 39.74	0.04	0.25	0.25	3.6	17.48	-1	0.5	17.40	2	6.4	-0.08	238	431	573	190	0.6200	
JVS0149+0555	01 49 22.371 +05 55 53.57	-0.09	-0.46	0.47	3.6	19.90	-1	-0.9	20.67	-1	1.0	0.77	1473	906	682	1233	2.3450	
JVS0149+1857	01 49 49.719 +18 57 20.60	–	–	–	-9.9	>20.00	–	–	>22.24	–	–	–	330	287	408	481		
JVS0151+2517	01 51 06.234 +25 17 28.65	-0.12	-0.25	0.28	3.6	19.79	-1	-0.8	>21.41	–	–	> 1.62	234	199	165	157	3.1000	
JVS0151+2744	01 51 27.145 +27 44 41.76	0.47	-0.63	0.79	2.6	18.84	-1	-1.1	20.07	1	3.7	1.23	995	893	691	1030	1.2600	
JVS0152+2207	01 52 18.060 +22 07 07.70	0.13	-0.04	0.14	3.7	18.06	-1	-0.6	19.18	-1	-0.7	1.12	1073	1041	1388	962	1.3200	
JVS0154+0823	01 54 02.771 +08 23 51.08	0.28	-0.19	0.34	3.8	17.50	-1	-0.3	18.65	-1	0.6	1.15	201	206	–	154		
JVS0155+0438	01 55 03.727 +04 38 30.35	0.34	0.09	0.35	3.7	18.66	-1	-0.2	20.01	-1	-1.1	1.35	318	323	345	256	1.1320	
JVS0155+2230	01 55 58.936 +22 30 11.87	0.59	-0.49	0.77	2.8	19.28	-1	1.8	19.49	-1	0.9	0.21	301	253	230	275		
JVS0158+1307	01 58 56.274 +13 07 02.74	0.08	0.25	0.26	3.7	18.86	-1	-0.3	19.14	-1	1.3	0.28	272	347	396	255		
JVS0200+0322	02 00 40.817 +03 22 49.50	-1.02	0.65	1.21	1.6	18.72	-1	0.2	19.58	-1	1.2	0.86	228	167	225	120	0.7650	
JVS0201+0343	02 01 51.510 +03 43 09.26	–	–	–	-9.9	>20.00	–	–	>21.94	–	–	–	312	425	512	324		
JVS0203+1134	02 03 46.657 +11 34 45.39	-0.05	0.13	0.14	3.8	18.78	-1	1.2	21.67	-1	0.4	2.89	824	781	904	696	3.6100	
JVS0204+1514	02 04 50.414 +15 14 11.05	–	–	–	-9.9	>20.00	–	–	>21.94	–	–	–	3073	4067	4510	3361	0.4050	
JVS0205+1444	02 05 13.118 +14 44 32.38	–	–	–	-9.9	>20.00	–	–	>21.94	–	–	–	375	197	139	180		
JVS0205+2416	02 05 21.323 +24 16 32.83	-0.14	-0.03	0.14	3.7	18.06	2	6.7	18.78	-1	-1.3	0.72	243	267	271	170		
JVS0209+2932	02 09 08.646 +29 32 45.76	-0.05	-0.09	0.10	3.5	18.72	-1	1.3	18.52	-1	-0.7	-0.20	319	505	433	219	2.1950	
JVS0209+1352	02 09 35.999 +13 52 00.75	0.03	0.29	0.29	3.7	>20.00	–	–	20.96	2	3.8	< 0.96	362	453	430	473		i
JVS0211+1051	02 11 13.177 +10 51 34.79	-0.02	-0.21	0.21	3.8	15.41	-1	-3.6	16.43	-1	0.8	1.02	384	318	273	352		
JVS0213+1820	02 13 10.530 +18 20 25.46	0.36	0.66	0.75	2.9	19.38	1	4.5	19.56	-1	1.2	0.18	269	116	171	362		
JVS0215+0524	02 15 55.011 +05 24 25.55	–	–	–	-9.9	>20.00	–	–	>21.94	–	–	–	276	206	274	186		c
JVS0217+0144	02 17 48.955 +01 44 49.69	-0.19	-0.14	0.24	3.7	17.70	-1	0.3	18.79	-1	-0.7	1.09	1419	750	626	1176	1.7150	e
JVS0219+0120	02 19 07.024 +01 20 59.85	-0.44	0.15	0.46	3.5	19.38	1	5.3	20.84	-1	-0.4	1.46	693	477	482	580	1.6230	
JVS0220+1652	02 20 00.760 +16 52 28.59	0.25	0.43	0.50	3.4	19.86	-1	2.4	20.15	-1	0.3	0.29	283	363	346	226		
JVS0221+2809	02 21 23.260 +28 09 02.16	0.99	0.69	1.21	1.3	17.68	2	10.8	19.82	-1	-0.4	2.14	250	441	427	163		
JVS0224+0659	02 24 28.427 +06 59 23.30	0.03	-0.31	0.31	3.7	19.79	-1	-1.1	20.76	-1	0.4	0.97	989	754	1002	830	0.5110	
JVS0225+1846	02 25 04.670 +18 46 48.77	-0.13	0.04	0.14	3.7	18.67	-1	-0.2	20.08	-1	-0.8	1.41	621	461	444	314		
JVS0231+1322	02 31 45.895 +13 22 54.71	-0.09	-0.11	0.14	3.8	17.44	-1	-0.8	17.86	-1	-0.6	0.42	2608	1559	1405	1741	2.0590	
JVS0232+2317	02 32 20.758 +23 17 56.82	-0.14	-0.22	0.26	3.5	19.93	-1	2.5	>21.40	–	–	> 1.47	444	460	365	259	3.4200	
JVS0232+2628	02 32 27.624 +26 28 38.60	-0.50	-0.21	0.54	3.2	19.12	-1	1.8	19.15	1	5.5	0.03	435	666	576	372		
JVS0234+0446	02 34 07.155 +04 46 43.05	0.13	-0.03	0.13	3.9	17.98	-1	-1.6	18.81	-1	-1.1	0.83	370	454	417	207	2.0600	
JVS0238+1636	02 38 38.931 +16 36 59.27	0.25	-0.22	0.33	3.6	18.58	-1	-0.6	20.18	-1	-1.3	1.60	1935	1941	2355	5340	0.9400	

Table 1. Sourcelist I, continued...

J2000	Position (J2000)		Opt-Rad Offset			Log	APM Red			APM Blue			Color	GB6	NVSS	GB1.4	VLA	z	Com
Name	α	δ	$\Delta\alpha$	$\Delta\delta$	Δr	lhr	mag	cls	psf	mag	cls	psf	mag	mJy	mJy	mJy	mJy		
(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
JVS0239+0416	02 39 51.263	+04 16 21.40	0.22	-0.43	0.48	3.5	17.75	-1	2.8	18.48	-1	0.0	0.73	1061	892	604	908	0.9780	
JVS0240+1848	02 40 42.817	+18 48 00.05	-0.08	0.36	0.37	3.5	18.45	-1	-0.8	19.12	-1	0.4	0.67	446	496	421	390	1.2970	
JVS0242+1101	02 42 29.171	+11 01 00.72	-0.29	-0.85	0.90	2.6	19.35	-1	0.6	21.30	-1	-0.9	1.95	1473	1664	1525	1398		
JVS0244+1320	02 44 45.695	+13 20 07.22	-0.28	-0.29	0.40	3.6	18.90	-1	-1.0	19.62	-1	1.4	0.72	214	140	168	150		
JVS0245+2405	02 45 16.857	+24 05 35.19	0.14	0.71	0.72	2.8	18.60	1	5.4	19.94	-1	-0.0	1.34	327	457	365	235		
JVS0246+1823	02 46 11.822	+18 23 30.09	0.24	0.30	0.38	3.5	19.42	-1	-0.2	>21.38	–	–	> 1.96	220	216	188	120	3.5900	
JVS0249+0619	02 49 18.017	+06 19 51.95	-0.17	-0.14	0.22	3.8	18.70	-1	0.9	19.45	-1	-0.1	0.75	620	498	343	614		
JVS0249+0749	02 49 51.916	+07 49 20.36	-0.25	-0.46	0.52	3.5	>20.00	–	–	18.83	-1	0.1	<-1.17	220	218	268	98		l
JVS0252+1718	02 52 07.719	+17 18 42.69	0.01	0.05	0.05	3.7	18.64	-1	-1.1	19.72	-1	0.1	1.08	236	240	240	195		
JVS0253+1805	02 53 34.883	+18 05 42.53	-0.15	0.02	0.15	3.7	17.91	-1	-0.4	18.87	-1	0.2	0.96	248	304	426	154		
JVS0256+1334	02 56 34.985	+13 34 35.33	–	–	–	-9.9	>20.00	–	–	>21.38	–	–	–	499	668	551	369		
JVS0257+1847	02 57 45.630	+18 47 05.37	0.00	0.39	0.39	3.5	19.44	-1	1.4	20.74	-1	-1.4	1.30	209	103	180	241		
JVS0258+0541	02 58 50.527	+05 41 08.04	0.01	-0.16	0.16	3.9	19.90	-1	0.5	20.46	-1	-1.6	0.56	213	144	–	244		
JVS0259+0747	02 59 27.077	+07 47 39.64	0.00	-0.27	0.27	3.8	17.24	-1	-1.1	18.89	-1	-0.4	1.65	648	834	645	466	0.8930	
JVS0301+0118	03 01 23.606	+01 18 35.97	0.16	-0.28	0.32	3.7	19.57	-1	-1.5	20.33	-1	1.0	0.76	412	531	364	296		
JVS0301+0602	03 01 33.713	+06 02 27.28	-0.29	-0.34	0.45	3.6	18.48	-1	-0.9	19.05	-1	-1.4	0.57	321	413	571	332	2.3130	
JVS0302+1218	03 02 30.548	+12 18 56.77	-0.95	0.52	1.08	2.0	>20.00	–	–	21.06	-1	0.8	< 1.06	473	637	549	414		
JVS0305+1734	03 05 10.225	+17 34 59.10	–	–	–	-9.9	>20.00	–	–	>21.38	–	–	–	264	231	414	232		
JVS0305+0523	03 05 48.192	+05 23 31.52	–	–	–	-9.9	>20.00	–	–	>21.88	–	–	–	274	96	–	209		c
JVS0309+1029	03 09 03.624	+10 29 16.34	–	–	–	-9.9	>20.00	–	–	>21.88	–	–	–	597	505	510	1163	0.8630	c
JVS0312+0133	03 12 43.603	+01 33 17.54	0.29	-0.01	0.29	3.6	17.98	-1	-0.3	18.73	-1	0.2	0.75	921	459	487	474	0.6640	
JVS0313+0228	03 13 13.405	+02 28 35.29	0.06	0.45	0.45	3.4	19.55	-1	0.7	19.93	-1	0.4	0.38	327	174	186	127		
JVS0319+1901	03 19 51.258	+19 01 31.31	0.06	-0.12	0.13	3.6	18.05	1	5.9	20.89	-1	0.6	2.84	771	386	376	586		
JVS0321+1221	03 21 53.104	+12 21 13.95	-0.51	-0.14	0.53	3.4	18.50	-1	0.1	19.63	-1	0.4	1.13	1543	1859	1760	1155	2.6620	
JVS0323+0145	03 23 09.873	+01 45 50.52	–	–	–	-9.9	>20.00	–	–	>21.54	–	–	–	394	406	409	351		
JVS0326+1521	03 26 31.633	+15 21 26.76	–	–	–	-9.9	>20.00	–	–	>20.56	–	–	–	280	213	–	147		
JVS0334+0800	03 34 53.319	+08 00 14.45	–	–	–	-9.9	>20.00	–	–	>21.28	–	–	–	358	306	393	458		
JVS0339+1329	03 39 43.847	+13 29 03.84	–	–	–	-9.9	>20.00	–	–	>21.05	–	–	–	299	362	346	150		
JVS0345+1453	03 45 06.418	+14 53 49.56	-0.54	-0.31	0.62	3.2	>20.00	–	–	20.95	-1	0.3	< 0.95	517	317	241	689		
JVS0348+0842	03 48 10.418	+08 42 08.87	–	–	–	-9.9	>20.00	–	–	>21.28	–	–	–	207	242	248	119		
JVS0350+0506	03 50 54.204	+05 06 21.21	–	–	–	-9.9	>20.00	–	–	>21.28	–	–	–	482	661	747	259		
JVS0354+0441	03 54 24.130	+04 41 07.28	-0.03	-0.24	0.24	3.8	19.59	-1	0.2	>21.28	–	–	> 1.69	444	369	541	283		
JVS0357+0542	03 57 46.126	+05 42 31.28	0.11	0.05	0.12	3.7	19.85	-1	-2.3	19.59	-1	1.8	-0.26	255	104	–	247		
JVS0400+0550	04 00 11.736	+05 50 43.14	-0.19	-0.12	0.22	3.7	17.52	-1	1.0	18.10	-1	-0.8	0.58	640	484	398	406		
JVS0406+0637	04 06 34.306	+06 37 14.97	-0.08	0.00	0.08	3.7	19.57	-1	-1.7	19.65	-1	-0.7	0.08	264	218	478	229		
JVS0409+0640	04 09 25.847	+06 40 35.09	–	–	–	-9.9	>20.00	–	–	>21.60	–	–	–	230	144	151	169		
JVS0412+0240	04 12 28.717	+02 40 37.94	-0.06	-0.15	0.16	3.7	>20.00	–	–	21.41	-1	-1.0	< 1.41	257	297	360	94		
JVS0412+0438	04 12 38.187	+04 38 06.06	0.24	0.56	0.61	3.2	19.80	-1	1.9	>21.60	–	–	> 1.80	233	190	214	204		
JVS0422+0219	04 22 52.215	+02 19 26.94	-0.19	0.16	0.25	3.6	>20.00	–	–	20.75	-1	0.9	< 0.75	865	677	428	968		
JVS0424+0226	04 24 02.579	+02 26 42.65	-0.07	0.08	0.11	3.7	17.95	-1	0.0	18.38	-1	0.5	0.43	203	250	156	149		
JVS0424+0204	04 24 08.563	+02 04 24.97	-0.04	-0.01	0.04	3.7	16.81	-1	0.8	17.36	-1	1.0	0.55	711	1149	1152	576	2.0440	
JVS0424+0036	04 24 46.843	+00 36 06.34	0.21	0.02	0.21	3.6	16.16	-1	1.8	17.29	-1	-0.2	1.13	879	493	520	288	0.3100	
JVS0749+5750	07 49 56.954	+57 50 15.31	0.38	-0.29	0.48	3.2	18.06	1	2.2	18.81	-1	0.9	0.75	242	407	426	148		
JVS0753+5352	07 53 01.385	+53 52 59.64	0.25	0.14	0.29	3.5	17.31	-1	0.9	18.19	-1	-1.1	0.88	964	803	791	1162		
JVS0754+4823	07 54 45.673	+48 23 50.75	0.20	-0.40	0.45	3.3	17.60	1	3.3	18.46	1	3.7	0.86	231	282	279	187		

Table 1. Sourcelist I, continued...

J2000 Name	Position (J2000)	Opt-Rad Offset			Log	APM Red			APM Blue			Color	GB6	NVSS	GB1.4	VLA	z	Com
	α δ	$\Delta\alpha$	$\Delta\delta$	Δr	lhr	mag	cls	psf	mag	cls	psf	mag	mJy	mJy	mJy	mJy		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
JVS0756+6347	07 56 54.611 +63 47 59.04	–	–	–	-9.9	>20.00	–	–	>21.72	–	–	–	268	192	146	258		
JVS0803+6403	08 03 52.158 +64 03 14.38	0.05	-0.04	0.06	3.5	17.87	-1	1.1	18.17	-1	0.1	0.30	218	328	292	202		
JVS0806+4504	08 06 33.472 +45 04 32.27	-0.24	0.08	0.25	3.5	19.59	-1	1.0	20.30	-1	-1.5	0.71	424	412	389	423	2.1020	
JVS0807+5117	08 07 01.013 +51 17 38.67	-0.26	-0.04	0.26	3.5	17.10	-1	1.3	17.48	-1	1.9	0.38	228	209	172	347	1.1400	
JVS0808+7315	08 08 16.493 +73 15 11.98	–	–	–	-9.9	>20.00	–	–	>21.81	–	–	–	335	300	436	310		
JVS0808+4950	08 08 39.667 +49 50 36.53	-5.59	-2.12	5.98	-9.9	14.65	1	3.9	15.77	1	9.5	1.12	1315	1114	892	853	1.4300	a
JVS0808+4052	08 08 56.651 +40 52 44.87	0.60	-0.02	0.60	3.0	17.53	1	9.7	18.63	-1	0.4	1.10	690	584	361	1161	1.4200	
JVS0809+5341	08 09 41.733 +53 41 25.09	0.76	-0.41	0.86	2.5	19.77	-1	-2.2	21.37	1	2.8	1.60	202	140	180	184		
JVS0811+5714	08 11 00.608 +57 14 12.50	0.22	0.02	0.22	3.6	17.15	-1	1.0	17.73	-1	0.1	0.58	375	453	–	348	0.6110	
JVS0815+3635	08 15 25.945 +36 35 15.14	-0.04	0.35	0.35	3.4	18.51	-1	-0.8	19.12	-1	0.9	0.61	994	995	1024	850	1.0250	
JVS0818+4222	08 18 15.999 +42 22 45.41	-0.16	0.06	0.17	3.5	18.85	-1	-0.3	19.92	-1	0.1	1.07	1866	1090	1472	1021	0.2453	
JVS0821+2857	08 21 54.068 +28 57 39.57	0.33	-1.31	1.35	0.9	19.11	1	7.2	20.91	1	2.3	1.80	209	128	–	151		
JVS0822+4041	08 22 57.555 +40 41 49.77	-0.10	-0.13	0.16	3.5	18.06	-1	0.7	18.62	-1	0.0	0.56	266	344	297	274		
JVS0823+2928	08 23 41.130 +29 28 28.17	0.19	-0.31	0.36	3.4	18.10	1	6.2	18.65	-1	-0.2	0.55	480	469	393	358	2.3680	
JVS0824+2438	08 24 33.009 +24 38 43.11	0.07	-0.45	0.46	3.3	18.98	-1	-0.2	19.73	-1	-1.2	0.75	288	261	256	233	1.2420	
JVS0824+5552	08 24 47.236 +55 52 42.66	0.06	-0.34	0.35	3.4	17.17	-1	2.0	17.83	-1	1.6	0.66	1155	1449	1272	1629	1.4170	
JVS0825+6157	08 25 38.611 +61 57 28.58	0.43	-0.12	0.45	3.4	17.27	-1	-1.2	17.68	-1	1.0	0.41	619	633	652	608	0.5420	
JVS0827+3525	08 27 38.589 +35 25 05.09	0.00	-0.66	0.66	3.0	19.66	-1	2.3	20.61	-1	0.2	0.95	751	957	866	657	2.2490	
JVS0827+5217	08 27 53.698 +52 17 58.28	0.13	0.09	0.16	3.6	18.10	1	3.1	20.27	-1	-0.2	2.17	292	278	388	188	0.3400	
JVS0830+2410	08 30 52.085 +24 10 59.83	-0.06	-0.14	0.15	3.6	16.16	-1	1.3	17.19	-1	-0.2	1.03	886	738	694	845	0.9390	
JVS0832+1832	08 32 16.042 +18 32 12.12	0.05	0.15	0.16	3.5	16.00	1	9.4	18.76	1	5.7	2.76	707	896	1160	529	0.1530	
JVS0832+4913	08 32 23.217 +49 13 21.04	-0.01	-0.02	0.02	3.7	18.34	-1	1.1	19.67	-1	0.6	1.33	372	344	1001	272	0.5480	
JVS0833+4224	08 33 53.885 +42 24 01.85	0.11	-0.01	0.11	3.6	16.99	-1	0.7	18.43	-1	-0.8	1.44	390	248	–	553	0.2530	
JVS0834+6019	08 34 17.547 +60 19 47.07	0.67	0.66	0.94	2.3	19.22	-1	1.6	20.66	-1	-0.6	1.44	297	190	259	339	0.7200	
JVS0834+5534	08 34 54.904 +55 34 21.09	-0.42	-1.58	1.63	-0.4	15.46	1	45.3	19.06	1	12.2	3.60	5740	8283	7741	3242	0.2420	
JVS0836+2728	08 36 22.887 +27 28 52.53	0.02	-0.28	0.28	3.6	17.59	-1	1.3	17.84	-1	2.7	0.25	260	312	166	543	0.7650	
JVS0836+4125	08 36 36.895 +41 25 54.70	0.04	-0.08	0.09	3.6	17.17	-1	-0.9	17.95	-1	-1.7	0.78	385	488	425	279	1.2980	
JVS0837+5825	08 37 22.409 +58 25 01.84	0.35	0.31	0.47	3.3	17.21	-1	-0.4	17.95	-1	-0.2	0.74	717	690	597	497	2.1010	
JVS0837+2454	08 37 40.248 +24 54 23.12	-0.54	0.02	0.54	3.2	17.19	-1	0.9	17.69	-1	1.4	0.50	458	522	540	515	1.1220	
JVS0839+2850	08 39 15.826 +28 50 38.76	-1.16	-2.71	2.95	-9.4	12.34	2	14.4	13.36	2	56.3	1.02	275	226	877	144	0.0789	b,d
JVS0839+1802	08 39 30.723 +18 02 47.14	-0.01	-0.05	0.05	3.6	16.53	-1	1.6	17.67	-1	1.9	1.14	310	399	382	332	0.2800	
JVS0841+7053	08 41 24.366 +70 53 42.18	0.15	-0.12	0.19	3.5	16.70	-1	-1.9	17.18	-1	-1.2	0.48	2342	3823	4243	1717	2.1720	
JVS0842+1835	08 42 05.094 +18 35 40.99	-0.01	-0.18	0.18	3.5	16.06	-1	1.0	16.74	-1	-0.1	0.68	898	1259	1198	883	1.2700	
JVS0843+6833	08 43 49.104 +68 33 17.15	-0.29	-0.52	0.60	3.0	>20.00	–	–	19.80	1	2.3	<-0.20	319	271	328	260		
JVS0844+3830	08 44 29.097 +38 30 55.69	–	–	–	-9.9	>20.00	–	–	>21.60	–	–	–	297	428	293	259		
JVS0847+5723	08 47 28.061 +57 23 38.33	–	–	–	-9.9	>20.00	–	–	>22.02	–	–	–	350	371	284	242		
JVS0847+4609	08 47 34.299 +46 09 27.99	-0.02	0.19	0.19	3.6	18.36	-1	1.5	19.35	-1	-1.2	0.99	232	289	496	261		
JVS0850+3747	08 50 24.732 +37 47 09.47	-0.48	0.33	0.58	3.2	18.41	1	5.9	21.18	-1	-0.6	2.77	391	622	614	252	0.4070	
JVS0852+2833	08 52 05.171 +28 33 59.75	0.28	-0.11	0.30	3.6	19.34	-1	-0.5	20.86	-1	0.0	1.52	329	232	332	229	1.2730	
JVS0853+6722	08 53 34.322 +67 22 15.66	–	–	–	-9.9	>20.00	–	–	>22.17	–	–	–	210	342	343	127		
JVS0853+0654	08 53 48.192 +06 54 47.23	0.13	-0.20	0.24	3.5	17.74	1	4.4	19.37	-1	0.3	1.63	489	795	786	257		
JVS0854+0720	08 54 35.038 +07 20 24.14	–	–	–	-9.9	>20.00	–	–	>22.17	–	–	–	327	136	178	166		
JVS0854+5757	08 54 41.997 +57 57 29.93	-0.02	0.05	0.05	3.7	16.99	-1	0.2	17.90	-1	-0.3	0.91	1184	1101	1424	918	1.3220	
JVS0854+2006	08 54 48.874 +20 06 30.64	-0.10	0.11	0.15	3.6	13.68	-1	2.2	14.52	-1	1.3	0.84	2908	1512	2281	3704	0.3060	
JVS0854+6218	08 54 50.577 +62 18 50.19	0.10	0.06	0.12	3.7	16.79	1	3.6	18.03	-1	1.0	1.24	215	387	326	323		

Table 1. Sourcelist I, continued...

J2000	Position (J2000)		Opt-Rad Offset			Log	APM Red			APM Blue			Color	GB6	NVSS	GB1.4	VLA	z	Com
Name	α	δ	$\Delta\alpha$	$\Delta\delta$	Δr	lhr	mag	cls	psf	mag	cls	psf	mag	mJy	mJy	mJy	mJy		
(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
JVS0856+2111	08 56 57.246	+21 11 43.65	0.81	-0.78	1.12	1.8	19.85	-1	1.8	20.09	1	4.2	0.24	349	396	406	305		
JVS0901+0304	09 01 50.979	+03 04 22.70	0.23	-0.09	0.25	3.5	17.77	1	9.1	20.01	1	4.6	2.24	244	369	511	124		
JVS0902+4310	09 02 30.921	+43 10 14.18	0.27	0.24	0.36	3.5	19.55	-1	1.1	20.65	-1	0.6	1.10	334	341	332	362	2.4100	
JVS0903+4651	09 03 03.990	+46 51 04.13	0.08	-0.38	0.39	3.6	18.62	-1	0.3	19.43	-1	0.2	0.81	1264	1755	2266	963	1.4620	
JVS0903+6757	09 03 53.157	+67 57 22.68	0.30	0.23	0.38	3.5	18.18	-1	-0.9	18.88	1	3.4	0.70	661	550	592	635	1.4990	
JVS0903+5151	09 03 58.575	+51 51 00.65	0.66	0.39	0.77	2.8	19.56	-1	0.2	20.27	-1	-1.6	0.71	373	336	322	273	1.5370	
JVS0905+4850	09 05 27.465	+48 50 49.96	0.32	-0.05	0.32	3.6	17.22	-1	1.6	18.01	-1	-0.2	0.79	553	614	636	447	2.6900	
JVS0907+6644	09 07 23.525	+66 44 46.95	–	–	–	-9.9	>20.00	–	–	>22.17	–	–	–	205	305	–	66		
JVS0907+6815	09 07 52.948	+68 15 44.91	0.43	0.39	0.58	3.2	18.20	1	4.2	20.65	-1	-0.3	2.45	316	206	227	210		
JVS0908+4150	09 08 35.863	+41 50 46.21	-0.19	0.07	0.20	3.6	18.48	-1	-0.6	19.41	-1	-1.7	0.93	222	229	–	149	0.7325	
JVS0909+0121	09 09 10.092	+01 21 35.61	-0.19	-0.06	0.20	3.5	16.97	-1	-1.9	17.57	-1	0.2	0.60	896	759	961	778	1.0180	
JVS0909+0200	09 09 39.848	+02 00 05.27	-0.72	0.26	0.77	2.7	18.11	-1	-0.1	18.94	-1	-0.4	0.83	218	156	125	226		
JVS0911+1958	09 11 33.460	+19 58 14.10	-0.23	0.36	0.43	3.4	17.34	-1	-0.2	17.96	-1	-2.8	0.62	284	334	319	214	1.6100	
JVS0911+3349	09 11 47.763	+33 49 16.82	0.36	-0.19	0.41	3.5	18.62	-1	1.8	20.18	-1	0.0	1.56	263	380	585	278		
JVS0914+0245	09 14 37.914	+02 45 59.24	-0.45	0.05	0.45	3.3	18.69	2	3.8	19.56	-1	0.8	0.87	893	442	712	693	0.4270	
JVS0914+3512	09 14 39.425	+35 12 04.59	0.51	0.01	0.51	3.4	19.47	-1	2.0	20.77	-1	0.9	1.30	307	332	–	226	1.0700	
JVS0915+2933	09 15 52.401	+29 33 23.98	-0.05	-0.01	0.05	3.7	15.43	-1	0.2	16.28	-1	0.6	0.85	215	341	327	176		
JVS0916+3854	09 16 48.905	+38 54 28.14	0.98	-0.02	0.98	2.2	18.14	2	5.1	19.28	-1	0.7	1.14	550	1005	1057	462	1.2690	
JVS0918+0946	09 18 38.570	+09 46 52.92	–	–	–	-9.9	>20.00	–	–	>22.13	–	–	–	384	603	634	257		c
JVS0920+4441	09 20 58.460	+44 41 53.99	0.47	-0.45	0.65	3.2	18.87	-1	1.2	19.38	-1	-0.2	0.51	1085	1017	781	1344	2.1800	
JVS0921+1350	09 21 31.374	+13 50 48.23	-6.22	1.01	6.30	-9.9	15.63	2	10.1	16.54	2	14.5	0.91	306	342	322	239		a
JVS0921+6215	09 21 36.232	+62 15 52.19	0.10	0.13	0.16	3.6	18.16	-1	1.0	19.27	-1	-0.7	1.11	1226	945	1227	1512	1.4460	
JVS0923+3849	09 23 14.453	+38 49 39.90	–	–	–	-9.9	>20.00	–	–	>21.67	–	–	–	282	375	386	369		
JVS0923+3107	09 23 47.951	+31 07 54.17	-0.07	0.13	0.15	3.7	17.92	-1	1.0	18.13	-1	2.0	0.21	288	280	249	174	0.8920	
JVS0925+0019	09 25 07.815	+00 19 13.93	0.16	0.24	0.29	3.4	17.08	-1	-1.3	18.12	-1	-0.6	1.04	810	736	741	500	1.7200	
JVS0925+3127	09 25 43.651	+31 27 10.83	-0.21	0.03	0.21	3.7	>20.00	–	–	20.92	-1	-0.1	< 0.92	336	382	419	282		
JVS0926+4029	09 26 00.426	+40 29 49.67	0.43	-0.39	0.58	3.3	19.61	-1	0.6	20.17	-1	0.1	0.56	288	284	350	272	1.8760	
JVS0927+3902	09 27 03.014	+39 02 20.84	-9.58	2.64	9.94	-9.9	14.14	2	10.0	14.99	2	10.7	0.85	6913	2884	2716	8012	0.6948	a
JVS0928+4446	09 28 24.137	+44 46 04.81	0.46	-0.54	0.71	3.0	18.10	-1	-0.7	18.22	-1	1.2	0.12	225	170	259	233		
JVS0929+5013	09 29 15.440	+50 13 35.98	0.33	0.35	0.48	3.4	15.63	-1	-0.4	-34.74	1	-99.9	-50.37	544	522	266	692		
JVS0930+4644	09 30 35.081	+46 44 08.65	9.65	-5.19	10.96	-9.9	13.75	2	6.3	15.01	2	14.8	1.26	202	356	366	131	2.0320	a
JVS0930+0034	09 30 52.254	+00 34 58.94	0.91	0.37	0.98	2.1	18.33	-1	2.0	18.93	-1	1.1	0.60	387	297	306	260	0.5050	
JVS0930+7420	09 30 53.782	+74 20 05.94	–	–	–	-9.9	>20.00	–	–	>21.65	–	–	–	285	210	200	231		
JVS0930+3503	09 30 55.278	+35 03 37.61	-0.13	0.21	0.25	3.7	19.18	-1	0.1	20.42	2	5.2	1.24	361	484	422	472		
JVS0931+1414	09 31 05.341	+14 14 16.52	-0.08	0.34	0.35	3.6	18.65	-1	-0.7	19.40	0	-2.7	0.75	201	252	228	197		
JVS0932+5306	09 32 41.152	+53 06 33.79	0.10	-0.28	0.30	3.6	17.39	-1	-0.2	18.10	-1	-0.8	0.71	388	481	537	380	0.5950	
JVS0932+3339	09 32 55.053	+33 39 29.57	-0.96	-1.69	1.94	-1.9	15.86	-1	0.9	16.99	-1	1.0	1.13	203	243	261	150		
JVS0934+4908	09 34 15.762	+49 08 21.72	-0.15	0.36	0.39	3.6	18.39	-1	-1.1	18.80	-1	0.1	0.41	527	800	733	398	2.5820	
JVS0935+0719	09 35 01.077	+07 19 18.62	-0.14	-0.06	0.15	3.7	17.26	1	5.4	21.02	-1	-0.9	3.76	350	444	353	208		
JVS0935+0915	09 35 13.643	+09 15 07.81	-0.44	0.72	0.84	2.7	19.86	-1	-0.2	20.25	-1	-0.3	0.39	290	199	178	210		
JVS0935+1929	09 35 29.219	+19 29 35.09	-1.35	-2.00	2.41	-4.9	17.53	2	15.4	-18.70	-1	-0.3	-36.23	286	287	283	154		a
JVS0935+3633	09 35 31.842	+36 33 17.56	0.43	0.11	0.44	3.5	18.12	-1	-0.9	19.11	-1	-0.4	0.99	241	279	257	186	2.8400	
JVS0937+5008	09 37 12.329	+50 08 52.08	-0.24	1.01	1.04	2.2	17.97	1	3.2	19.58	-1	0.5	1.61	315	166	–	352	0.2760	
JVS0939+4141	09 39 49.616	+41 41 54.19	0.21	0.14	0.25	3.7	18.06	-1	-0.2	18.83	-1	1.1	0.77	233	245	185	285		
JVS0940+2603	09 40 14.723	+26 03 29.94	0.35	0.80	0.87	2.6	19.21	-1	1.0	20.85	-1	-0.3	1.64	292	462	311	429	0.4980	

Table 1. Sourcelist I, continued...

J2000 Name	Position (J2000) α	δ	Opt-Rad Offset $\Delta\alpha$	$\Delta\delta$	Δr	Log lhr	APM Red mag	cls	psf	APM Blue mag	cls	psf	Color mag	GB6 mJy	NVSS mJy	GB1.4 mJy	VLA mJy	z	Com
(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
JVS0941+2728	09 41 48.117	+27 28 38.82	-2.71	1.40	3.05	-9.9	17.73	-1	2.4	18.88	1	10.2	1.15	223	177	225	271		
JVS0943+1702	09 43 17.223	+17 02 18.97	-1.56	-0.70	1.71	-0.5	19.99	2	5.6	>22.12	–	–	> 2.13	329	290	246	309		
JVS0944+5202	09 44 52.155	+52 02 34.22	–	–	–	-9.9	>20.00	–	–	>21.70	–	–	–	391	615	851	258	0.5650	e,f
JVS0945+3534	09 45 38.119	+35 34 55.08	0.19	-0.11	0.22	3.7	17.91	-1	-0.4	18.34	-1	0.6	0.43	312	329	254	262		
JVS0945+4636	09 45 42.095	+46 36 50.59	–	–	–	-9.9	>20.00	–	–	>21.85	–	–	–	381	472	278	356		
JVS0946+1017	09 46 35.070	+10 17 06.13	0.23	0.10	0.25	3.7	18.59	-1	-1.6	19.39	-1	1.5	0.80	320	410	379	297		
JVS0947+1113	09 47 45.856	+11 13 53.99	0.42	0.18	0.46	3.5	17.81	-1	-0.6	18.88	-1	-0.7	1.07	207	210	210	133	1.7600	
JVS0948+4039	09 48 55.337	+40 39 44.58	-0.05	0.04	0.06	3.8	17.17	-1	1.4	17.85	-1	0.8	0.68	1801	1599	1491	1338	1.2520	
JVS0948+0022	09 48 57.322	+00 22 25.56	0.11	-0.18	0.21	3.6	17.03	-1	-0.5	17.78	-1	-0.1	0.75	295	69	153	234		
JVS0952+3512	09 52 32.026	+35 12 52.39	0.12	-0.15	0.19	3.7	18.85	-1	-0.1	19.06	-1	-0.9	0.21	371	333	344	337	1.8750	
JVS0953+1720	09 53 59.233	+17 20 56.67	-0.11	0.01	0.11	3.9	18.34	-1	0.2	18.53	-1	0.3	0.19	199	121	–	128		
JVS0954+2639	09 54 39.793	+26 39 24.54	–	–	–	-9.9	>20.00	–	–	>21.86	–	–	–	248	312	196	273		
JVS0954+7435	09 54 47.442	+74 35 57.14	–	–	–	-9.9	>20.00	–	–	>21.62	–	–	–	778	1212	1186	411		
JVS0954+1743	09 54 56.825	+17 43 31.24	-0.13	-0.17	0.21	3.8	17.57	-1	0.7	17.79	-1	1.5	0.22	865	1158	1189	487	1.4720	
JVS0956+3935	09 56 08.559	+39 35 16.19	-0.29	-0.28	0.40	3.5	19.73	-1	-0.1	20.56	1	2.4	0.83	255	292	326	145	1.1790	
JVS0956+5753	09 56 22.632	+57 53 55.90	0.31	0.04	0.31	3.6	19.14	-1	-0.6	19.47	-1	1.0	0.33	292	354	352	285		
JVS0956+2515	09 56 49.875	+25 15 16.05	-0.20	0.00	0.20	3.8	16.15	-1	1.6	16.78	-1	-1.1	0.63	1042	1080	723	1836	0.7120	
JVS0957+5522	09 57 38.184	+55 22 57.74	-0.32	0.28	0.43	3.4	16.30	-1	1.2	16.99	-1	2.8	0.69	2015	3079	3000	1545	0.9090	
JVS0958+4725	09 58 19.671	+47 25 07.83	-0.13	-0.19	0.23	3.7	17.81	-1	-0.9	18.28	-1	-0.4	0.47	1005	603	687	881	1.8730	
JVS0958+6533	09 58 47.247	+65 33 54.81	0.13	-0.10	0.16	3.6	15.45	-1	0.2	16.74	-1	-1.2	1.29	1125	729	648	1206	0.3680	
JVS1001+3424	10 01 11.947	+34 24 50.41	0.46	0.13	0.48	3.4	>20.00	–	–	20.90	-1	0.2	< 0.90	300	204	161	260		
JVS1001+1015	10 01 57.736	+10 15 49.70	0.09	0.14	0.17	3.8	17.75	-1	0.9	18.26	-1	-0.1	0.51	301	305	283	279	1.5350	
JVS1002+1216	10 02 52.846	+12 16 14.59	0.31	0.00	0.31	3.7	19.49	-1	-0.3	20.90	-1	0.3	1.41	246	200	179	244		
JVS1003+3244	10 03 57.562	+32 44 03.54	0.54	-0.41	0.68	3.1	18.23	-1	1.0	18.80	-1	-0.4	0.57	371	416	470	252	1.6820	
JVS1007+1356	10 07 41.498	+13 56 29.60	0.08	-0.02	0.08	3.8	18.39	-1	0.0	19.15	-1	0.7	0.76	841	936	1043	970	2.7070	
JVS1008+0621	10 08 00.817	+06 21 21.20	-0.09	-0.07	0.11	3.7	16.04	-1	2.0	17.30	-1	-1.4	1.26	500	507	239	674		
JVS1009+0622	10 09 49.808	+06 22 00.97	–	–	–	-9.9	>20.00	–	–	>21.89	–	–	–	230	152	–	118		
JVS1010+3330	10 10 51.826	+33 30 17.72	0.21	-0.30	0.37	3.6	>20.00	–	–	19.30	-1	0.6	<-0.70	321	278	210	340		
JVS1011+0106	10 11 15.639	+01 06 42.47	0.03	0.09	0.09	3.7	19.23	-1	-1.2	19.76	-1	-0.4	0.53	251	304	279	222		
JVS1012+0630	10 12 13.348	+06 30 57.18	-0.01	-0.24	0.24	3.6	16.24	-1	0.6	17.26	-1	-1.7	1.02	300	535	514	169		
JVS1012+2312	10 12 16.390	+23 12 14.61	-0.24	-0.49	0.55	3.4	>20.00	–	–	20.72	-1	0.3	< 0.72	272	146	499	247		
JVS1013+3445	10 13 49.615	+34 45 50.78	0.20	0.10	0.22	3.8	18.63	1	3.8	-18.80	2	10.9	-37.43	630	355	418	367	1.4140	
JVS1013+2449	10 13 53.430	+24 49 16.43	-0.15	0.03	0.15	3.8	15.98	-1	1.4	16.51	-1	0.3	0.53	937	482	–	1053	1.6360	
JVS1014+2301	10 14 47.067	+23 01 16.57	-4.44	-8.11	9.25	-9.9	12.90	2	11.6	13.95	2	17.2	1.05	1093	1095	1212	1010	0.5650	a
JVS1015+4926	10 15 04.137	+49 26 00.69	-0.11	-0.11	0.16	3.8	15.51	1	4.0	16.47	-1	0.1	0.96	299	377	382	248	0.2000	
JVS1015+1227	10 15 44.024	+12 27 07.07	-0.05	-0.40	0.40	3.6	18.53	-1	1.9	20.29	-1	-0.8	1.76	373	183	426	302		
JVS1016+0513	10 16 03.137	+05 13 02.31	-0.16	-0.70	0.72	2.9	19.05	-1	-0.4	19.72	-1	-0.2	0.67	593	401	418	303		
JVS1016+2037	10 16 44.325	+20 37 47.31	0.63	-0.74	0.97	2.4	18.67	-1	-0.8	20.06	-1	-0.1	1.39	986	726	773	973	3.1100	
JVS1017+6116	10 17 25.885	+61 16 27.49	-0.02	-0.35	0.35	3.6	18.12	-1	-0.6	19.15	-1	0.7	1.03	596	404	361	571	2.8000	
JVS1018+3542	10 18 10.987	+35 42 39.44	-0.31	0.05	0.31	3.8	17.71	-1	0.6	18.64	-1	-0.6	0.93	707	615	910	724	1.2260	
JVS1018+0530	10 18 27.848	+05 30 29.94	-0.67	0.46	0.81	2.7	19.30	2	8.0	19.87	-1	-0.0	0.57	627	278	290	295		
JVS1019+6320	10 19 50.873	+63 20 01.62	0.10	-0.05	0.11	3.8	18.31	-1	0.3	19.28	-1	0.1	0.97	237	108	–	268		
JVS1020+4320	10 20 27.204	+43 20 56.34	0.46	0.43	0.63	3.1	18.27	-1	-1.0	19.37	-1	0.5	1.10	246	102	–	152	1.9600	
JVS1021+3437	10 21 17.473	+34 37 21.61	-0.20	-0.17	0.26	3.8	17.21	-1	-0.4	17.77	-1	2.4	0.56	447	457	477	508	1.4040	
JVS1022+4239	10 22 13.133	+42 39 25.62	–	–	–	-9.9	>20.00	–	–	>21.77	–	–	–	314	185	176	261		

Table 1. Sourcelist I, continued...

J2000	Position (J2000)	Opt-Rad Offset			Log	APM Red			APM Blue			Color	GB6	NVSS	GB1.4	VLA	z	Com
Name	α δ	$\Delta\alpha$	$\Delta\delta$	Δr	lhr	mag	cls	psf	mag	cls	psf	mag	mJy	mJy	mJy	mJy		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
JVS1022+1853	10 22 55.159 +18 53 34.28	-0.14	-0.01	0.14	3.7	18.93	-1	-1.4	19.04	-1	1.4	0.11	419	544	499	293	2.1360	
JVS1023+3948	10 23 11.566 +39 48 15.38	0.62	-0.32	0.70	3.0	16.68	-1	-0.8	17.38	-1	-1.1	0.70	789	1122	1161	770	1.2540	
JVS1024+1912	10 24 44.809 +19 12 20.43	0.01	0.19	0.19	3.7	17.38	-1	1.6	18.22	-1	0.7	0.84	765	680	667	631	0.8280	
JVS1025+1253	10 25 56.286 +12 53 49.02	-0.29	0.05	0.29	3.7	18.19	-1	2.0	18.71	-1	0.6	0.52	631	539	421	903	0.6630	
JVS1027+4803	10 27 13.080 +48 03 13.52	0.09	-0.12	0.15	3.8	18.80	-1	-1.3	19.46	-1	0.5	0.66	242	241	272	195		
JVS1027+7428	10 27 24.149 +74 28 26.09	-0.36	-0.23	0.43	3.4	18.72	-1	0.6	20.17	-1	1.1	1.45	211	184	197	140	0.8790	
JVS1028+0255	10 28 20.402 +02 55 22.46	-0.19	-0.15	0.24	3.8	>20.00	–	–	21.25	1	3.6	< 1.25	362	283	–	315		
JVS1028+2401	10 28 21.260 +24 01 21.79	-0.05	-0.26	0.26	3.8	19.08	-1	-0.9	18.93	-1	0.9	-0.15	286	264	458	218		
JVS1031+7441	10 31 22.020 +74 41 58.31	-2.89	1.72	3.36	-9.9	13.31	1	15.7	15.11	1	15.7	1.80	250	217	316	99	0.1230	b,h
JVS1031+6020	10 31 44.755 +60 20 30.35	0.38	-0.02	0.38	3.6	17.79	-1	-0.8	18.65	-1	0.5	0.86	253	321	242	289		
JVS1033+4116	10 33 03.709 +41 16 06.23	0.07	-0.17	0.18	3.7	17.36	-1	0.6	18.36	-1	1.0	1.00	439	473	773	378	1.1200	
JVS1033+3935	10 33 22.063 +39 35 51.08	–	–	–	-9.9	>20.00	–	–	>22.02	–	–	–	651	400	379	509	1.0950	
JVS1033+0711	10 33 34.024 +07 11 26.12	-0.85	0.35	0.92	2.6	19.45	2	2.8	21.95	2	4.7	2.50	341	155	163	216	1.5350	
JVS1033+6051	10 33 51.427 +60 51 07.33	0.33	0.06	0.34	3.6	19.32	-1	-1.4	20.80	-1	-0.9	1.48	532	462	766	427	0.3360	
JVS1035+5040	10 35 06.017 +50 40 06.09	1.41	0.81	1.63	-0.3	19.63	1	5.0	>21.78	–	–	> 2.15	225	230	185	170		
JVS1035+5628	10 35 07.040 +56 28 46.79	0.06	-0.74	0.74	3.0	19.92	1	2.1	>22.19	–	–	> 2.27	1200	1802	1769	778	0.4500	
JVS1037+2834	10 37 43.832 +28 34 59.45	0.37	-0.71	0.80	2.8	>20.00	–	–	21.14	1	2.6	< 1.14	207	327	175	208		
JVS1038+0512	10 38 46.781 +05 12 29.10	-0.24	-0.03	0.24	3.8	18.66	1	6.5	20.52	-1	-0.8	1.86	371	640	374	489		
JVS1041+0610	10 41 17.163 +06 10 16.92	-0.03	-0.05	0.06	3.8	15.94	-1	2.0	16.10	2	13.4	0.16	1331	1405	1355	1330	1.2700	k
JVS1041+5233	10 41 46.781 +52 33 28.22	0.28	-0.19	0.34	3.5	16.25	-1	0.4	16.57	-1	1.9	0.32	701	692	713	720	0.6770	
JVS1043+2408	10 43 09.035 +24 08 35.42	-0.11	-0.24	0.26	3.8	17.09	-1	1.2	18.18	-1	-0.1	1.09	328	324	323	647		
JVS1044+5322	10 44 10.671 +53 22 20.52	0.37	-0.25	0.45	3.4	19.03	-1	-0.4	19.60	-1	-0.9	0.57	437	490	543	389	1.8970	
JVS1044+0655	10 44 55.911 +06 55 38.26	0.23	-0.14	0.27	3.6	17.52	-1	1.0	18.55	-1	2.2	1.03	432	489	511	315	0.6980	
JVS1045+1735	10 45 14.361 +17 35 48.09	-0.69	2.51	2.60	-6.3	19.99	-1	1.6	>21.77	–	–	> 1.78	391	466	525	324		
JVS1045+0624	10 45 52.734 +06 24 36.45	0.08	-0.41	0.42	3.4	16.79	-1	1.7	17.44	-1	0.8	0.65	427	157	276	397	1.5070	
JVS1046+5354	10 46 24.039 +53 54 26.22	0.18	-0.41	0.45	3.4	18.44	-1	-0.3	19.19	-1	0.1	0.75	271	156	171	182	1.7040	
JVS1048+0055	10 48 07.746 +00 55 43.48	–	–	–	-9.9	>20.00	–	–	>21.86	–	–	–	227	271	299	246		
JVS1048+0141	10 48 22.866 +01 41 48.10	–	–	–	-9.9	>20.00	–	–	>21.86	–	–	–	472	382	452	309		
JVS1048+7143	10 48 27.621 +71 43 35.93	0.02	0.18	0.18	3.6	17.96	-1	0.6	18.82	-1	0.8	0.86	1900	736	624	1259	1.1500	
JVS1050+3430	10 50 58.120 +34 30 10.90	-0.04	-0.05	0.06	3.8	18.98	-1	1.4	20.38	-1	-1.3	1.40	312	553	532	243	2.5200	
JVS1051+4644	10 51 15.897 +46 44 17.36	-1.20	-0.77	1.43	0.6	16.83	1	4.7	18.82	-1	0.6	1.99	270	320	445	211		
JVS1051+2119	10 51 48.791 +21 19 52.35	-0.15	0.06	0.16	3.8	17.48	-1	-0.6	18.46	-1	-0.6	0.98	1076	1253	1123	1135	1.3000	
JVS1056+7011	10 56 53.617 +70 11 45.90	-0.30	-0.38	0.48	3.3	18.71	-1	1.1	19.34	-1	0.1	0.63	539	310	608	603	2.4920	
JVS1058+4304	10 58 02.920 +43 04 41.51	0.17	0.13	0.21	3.7	>20.00	–	–	21.53	-1	0.8	< 1.53	251	307	692	233		
JVS1058+0133	10 58 29.607 +01 33 58.82	0.19	-0.09	0.21	3.8	17.57	-1	1.2	18.62	-1	0.2	1.05	3403	3220	3135	3691	0.8880	
JVS1058+5628	10 58 37.726 +56 28 11.18	0.39	0.20	0.44	3.4	14.59	1	3.6	15.80	-1	1.4	1.21	247	228	176	189	0.1440	
JVS1059+2057	10 59 39.044 +20 57 22.00	-0.21	0.11	0.24	3.7	18.35	-1	0.8	19.79	-1	-0.7	1.44	269	120	117	276	0.4000	
JVS1101+3904	11 01 30.071 +39 04 32.63	–	–	–	-9.9	>20.00	–	–	>22.12	–	–	–	266	334	272	261		
JVS1101+7225	11 01 48.806 +72 25 37.10	0.43	0.03	0.43	3.4	16.79	-1	2.0	17.33	-1	0.5	0.54	858	1245	1451	436	1.4600	
JVS1101+6241	11 01 53.448 +62 41 50.60	-0.02	-0.14	0.14	3.8	17.69	-1	0.4	17.94	-1	-1.3	0.25	693	738	598	354	0.6640	
JVS1102+2757	11 02 14.287 +27 57 08.68	-0.29	-0.05	0.29	3.7	18.83	-1	-0.9	19.38	-1	-0.1	0.55	399	236	425	277	1.8610	
JVS1102+5941	11 02 42.762 +59 41 19.57	0.42	-0.25	0.49	3.4	16.73	-1	1.2	17.49	-1	-1.2	0.76	249	352	326	175	1.8300	
JVS1103+1158	11 03 03.530 +11 58 16.61	-0.12	-0.16	0.20	3.8	18.78	-1	-0.8	19.45	-1	0.6	0.67	306	262	267	194		
JVS1103+3014	11 03 13.301 +30 14 42.70	-0.43	-0.26	0.50	3.5	17.50	-1	1.8	18.03	-1	-0.1	0.53	202	169	253	244	0.3800	
JVS1103+2203	11 03 23.069 +22 03 37.73	–	–	–	-9.9	>20.00	–	–	>21.89	–	–	–	535	518	514	352		

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Name	α δ	$\Delta\alpha$	$\Delta\delta$	Δr	lhr	mag	cls	psf	mag	cls	psf	mag	mJy	mJy	mJy	mJy		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
JVS1104+3812	11 04 27.315 +38 12 31.79	-0.95	-1.21	1.54	0.2	9.16	-1	-0.4	11.79	1	6.9	2.63	723	814	835	631	0.0300	b,e
JVS1105+0202	11 05 38.993 +02 02 57.48	0.17	0.16	0.23	3.8	15.86	1	9.7	17.17	-1	1.3	1.31	295	272	298	84		
JVS1106+2812	11 06 07.259 +28 12 47.04	-0.04	0.12	0.13	3.8	19.16	-1	0.2	19.61	-1	0.3	0.45	369	224	236	181		
JVS1107+1628	11 07 15.048 +16 28 02.24	-0.04	-0.18	0.18	3.7	16.52	-1	-1.9	17.18	-1	-1.0	0.66	561	884	867	364	0.6320	
JVS1107+7232	11 07 41.724 +72 32 36.01	0.38	0.02	0.38	3.5	17.82	-1	-0.8	18.32	-1	-1.4	0.50	271	370	388	170	2.1000	
JVS1108+4330	11 08 23.479 +43 30 53.64	-0.51	-0.85	0.99	2.3	19.52	-1	1.6	21.38	-1	-0.1	1.86	342	300	266	282	1.2260	
JVS1110+6028	11 10 13.089 +60 28 42.55	–	–	–	-9.9	>20.00	–	–	>21.88	–	–	–	410	428	345	276		
JVS1110+4403	11 10 46.346 +44 03 25.94	0.10	-0.10	0.14	3.8	18.92	-1	-0.8	18.87	-1	2.9	-0.05	319	292	373	272		
JVS1111+1955	11 11 20.067 +19 55 36.02	-0.58	0.30	0.65	3.1	18.14	1	5.0	21.48	1	4.4	3.34	666	1195	1152	354		
JVS1112+3446	11 12 38.767 +34 46 39.12	0.25	0.11	0.27	3.6	18.22	-1	-0.3	18.77	-1	-0.3	0.55	216	165	120	152	1.9495	
JVS1113+1442	11 13 58.696 +14 42 26.95	-0.09	-0.53	0.54	3.4	17.22	-1	-0.6	17.92	-1	0.4	0.70	495	642	530	450	0.8690	
JVS1116+0829	11 16 09.973 +08 29 22.02	–	–	–	-9.9	>20.00	–	–	>21.94	–	–	–	282	244	256	329		
JVS1117+4120	11 17 53.333 +41 20 16.28	-0.31	0.42	0.52	3.4	18.25	-1	2.3	18.70	-1	-0.4	0.45	237	334	384	163		
JVS1118+1234	11 18 57.301 +12 34 41.72	-0.19	0.09	0.21	3.8	18.07	-1	-2.0	18.82	-1	-1.3	0.75	1820	1112	1990	1640	2.1180	
JVS1119+0410	11 19 42.826 +04 10 27.94	0.35	0.10	0.36	3.6	19.96	-1	-1.9	>21.91	–	–	> 1.95	489	303	–	366		
JVS1122+1805	11 22 29.712 +18 05 26.35	0.11	0.25	0.27	3.7	17.14	-1	-1.3	18.29	-1	-0.7	1.15	744	693	690	589	1.0400	
JVS1124+2336	11 24 02.707 +23 36 45.88	-0.20	-0.08	0.22	3.7	>20.00	–	–	20.98	-1	-1.4	< 0.98	709	525	473	464		
JVS1125+2610	11 25 53.711 +26 10 19.98	0.08	-0.11	0.14	3.8	18.13	1	2.4	18.75	-1	0.8	0.62	1176	921	811	1033	2.3410	
JVS1125+2005	11 25 58.744 +20 05 54.38	-0.42	0.19	0.46	3.5	15.22	1	19.4	17.29	1	9.4	2.07	640	862	–	386	0.1330	
JVS1126+4516	11 26 57.654 +45 16 06.29	0.26	0.21	0.33	3.6	16.98	-1	0.2	17.39	-1	-0.9	0.41	360	404	493	333	1.8110	
JVS1127+5650	11 27 40.134 +56 50 14.79	0.80	-0.63	1.02	2.2	18.06	-1	1.3	18.86	-1	2.5	0.80	448	464	775	498	2.8900	
JVS1127+3620	11 27 58.872 +36 20 28.35	0.37	0.45	0.58	3.2	19.14	-1	-1.5	19.59	2	6.9	0.45	236	168	117	284		
JVS1128+5925	11 28 13.340 +59 25 14.78	0.01	-0.20	0.20	3.7	19.95	-1	-0.3	>22.25	–	–	> 2.30	320	301	364	584		a
JVS1128+2102	11 28 35.543 +21 02 37.39	-0.16	-0.19	0.25	3.7	18.25	-1	1.4	18.93	-1	-0.3	0.68	220	292	–	214		
JVS1130+0846	11 30 35.949 +08 46 43.09	-0.16	-0.28	0.32	3.7	>20.00	–	–	20.52	-1	-0.7	< 0.52	317	224	430	156		
JVS1130+3031	11 30 42.428 +30 31 35.37	0.12	-0.22	0.25	3.8	17.73	-1	1.0	18.42	-1	0.1	0.69	410	366	464	211	0.7400	
JVS1130+3815	11 30 53.284 +38 15 18.55	0.24	0.02	0.24	3.6	18.59	-1	-0.5	19.54	-1	1.1	0.95	769	702	934	899	1.7330	
JVS1131+3114	11 31 09.478 +31 14 05.49	0.15	-0.06	0.16	3.8	16.20	-1	2.8	16.92	-1	0.0	0.72	311	359	338	126	0.2890	
JVS1132+0034	11 32 45.619 +00 34 27.82	-0.18	0.05	0.19	3.7	17.23	-1	-0.1	18.06	-1	-1.6	0.83	340	469	472	230		
JVS1133+0040	11 33 20.058 +00 40 52.84	-0.01	-0.15	0.15	3.7	19.13	-1	-0.5	19.82	-1	0.6	0.69	351	365	393	327		
JVS1134+7249	11 34 11.408 +72 49 20.05	0.37	-0.09	0.38	3.5	17.41	-1	-0.2	17.95	1	3.6	0.54	229	216	–	211	1.5710	
JVS1136+7009	11 36 26.406 +70 09 27.31	0.26	0.35	0.44	3.4	10.88	1	6.9	12.57	2	16.4	1.69	267	350	297	214	0.0460	b
JVS1138+4745	11 38 21.138 +47 45 15.41	-0.14	0.24	0.28	3.6	19.11	-1	-0.7	20.02	-1	0.6	0.91	246	297	308	245		
JVS1139+4032	11 39 02.735 +40 32 54.85	-0.31	-0.15	0.34	3.6	18.45	-1	1.4	19.32	-1	0.9	0.87	273	372	340	253		
JVS1141+6410	11 41 12.229 +64 10 05.48	-0.35	1.36	1.40	0.9	19.41	-1	0.2	21.30	-1	-1.5	1.89	307	252	275	253		
JVS1143+1834	11 43 26.070 +18 34 38.37	–	–	–	-9.9	>20.00	–	–	>22.25	–	–	–	315	310	262	247		
JVS1143+6633	11 43 41.602 +66 33 31.21	0.26	0.10	0.28	3.7	18.33	-1	-0.2	19.55	-1	-0.5	1.22	245	132	193	286	2.3200	
JVS1144+0054	11 44 08.714 +00 54 36.33	1.62	-1.10	1.96	-2.0	>20.00	–	–	21.82	1	8.7	< 1.82	285	291	314	177		a
JVS1145+0455	11 45 21.317 +04 55 26.70	0.40	-0.16	0.43	3.5	18.70	-1	1.1	19.79	-1	-0.6	1.09	486	666	617	318	1.3420	
JVS1145+4420	11 45 38.517 +44 20 21.91	-0.37	-0.22	0.43	3.5	17.29	-1	2.5	-34.90	1	-99.9	-52.19	226	362	438	224	0.3000	
JVS1146+5848	11 46 26.912 +58 48 34.25	0.00	0.05	0.05	3.8	19.59	-1	-0.2	19.83	-1	0.8	0.24	579	372	276	569	1.9820	
JVS1146+5356	11 46 44.205 +53 56 43.08	0.65	0.01	0.65	3.1	19.63	-1	1.2	21.21	-1	-1.5	1.58	522	367	406	349	2.2010	
JVS1146+3958	11 46 58.299 +39 58 34.31	0.28	0.33	0.43	3.5	18.03	-1	-0.3	19.02	1	2.9	0.99	836	331	912	565	1.0880	
JVS1147+3501	11 47 22.129 +35 01 07.52	-0.20	0.15	0.25	3.8	>20.00	–	–	14.75	1	18.8	<-5.25	669	637	695	501	0.0630	
JVS1147+2635	11 47 59.767 +26 35 42.33	-0.07	0.07	0.10	4.0	17.40	-1	0.6	17.94	-1	-0.1	0.54	420	341	418	437	0.8670	

Table 1. Sourcelist I, continued...

J2000	Position (J2000)	Opt-Rad Offset			Log	APM Red			APM Blue			Color	GB6	NVSS	GB1.4	VLA	z	Com
Name	α δ	$\Delta\alpha$	$\Delta\delta$	Δr	lhr	mag	cls	psf	mag	cls	psf	mag	mJy	mJy	mJy	mJy		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
JVS1148+1840	11 48 37.776 +18 40 08.99	-0.34	-0.33	0.47	3.5	19.89	-1	0.1	21.40	-1	1.1	1.51	272	459	288	298		
JVS1148+5924	11 48 50.359 +59 24 56.37	3.35	2.56	4.22	-9.9	>20.00	–	–	12.77	1	5.4	<-7.23	566	481	415	516	0.0108	b,m
JVS1148+5254	11 48 56.570 +52 54 25.33	0.16	0.25	0.30	3.6	15.36	-1	0.7	15.93	-1	-0.3	0.57	288	93	421	597	1.6320	
JVS1149+2824	11 49 08.906 +28 24 34.90	-1.04	0.40	1.11	2.1	>20.00	–	–	22.16	-1	0.8	< 2.16	222	280	–	297		
JVS1150+2417	11 50 19.215 +24 17 53.86	0.02	-0.16	0.16	3.8	16.36	-1	-1.0	17.52	-1	-1.0	1.16	645	797	630	704		
JVS1153+0955	11 53 48.528 +09 55 54.91	-0.06	-0.28	0.29	3.7	18.23	-1	-0.2	18.94	-1	-1.4	0.71	339	203	162	202	0.8950	
JVS1157+1638	11 57 34.836 +16 38 59.67	0.37	0.05	0.37	3.7	17.08	-1	-0.5	18.01	-1	-0.1	0.93	870	813	628	558	1.0500	
JVS1158+2450	11 58 25.789 +24 50 18.00	0.07	-0.05	0.09	3.8	17.06	1	10.5	19.79	1	4.1	2.73	1161	1021	1037	702		
JVS1158+4825	11 58 26.771 +48 25 16.24	-0.26	0.29	0.39	3.5	>20.00	–	–	19.90	-1	0.4	<-0.10	553	275	484	424	2.0280	
JVS1159+0954	11 59 11.866 +09 54 47.01	–	–	–	-9.9	>20.00	–	–	>21.93	–	–	–	272	162	157	155		
JVS1159+2914	11 59 31.834 +29 14 43.82	-0.28	-0.17	0.33	3.8	16.58	-1	-0.2	17.53	-1	1.0	0.95	1461	1985	1754	1205	0.7290	
JVS1200+5300	12 00 06.012 +53 00 37.12	–	–	–	-9.9	>20.00	–	–	>21.74	–	–	–	247	155	268	212	1.9970	
JVS1201+1431	12 01 44.271 +14 31 36.49	0.11	-0.97	0.98	2.5	>20.00	–	–	21.48	-1	0.9	< 1.48	214	156	118	188		
JVS1204+5228	12 04 36.801 +52 28 41.78	0.21	-0.04	0.21	3.7	17.88	-1	-0.3	18.55	-1	-1.5	0.67	213	294	441	172	2.7300	
JVS1206+0529	12 06 58.026 +05 29 52.27	-0.23	0.47	0.52	3.5	>20.00	–	–	22.29	-1	1.2	< 2.29	295	467	402	312		
JVS1207+1211	12 07 12.624 +12 11 45.89	-0.53	-0.37	0.65	3.2	18.67	-1	1.0	19.75	-1	-0.1	1.08	211	187	204	328		
JVS1207+2754	12 07 27.902 +27 54 58.85	0.04	0.27	0.27	3.7	18.04	-1	-1.6	18.35	-1	-0.0	0.31	457	589	525	529	2.1770	
JVS1208+5413	12 08 27.500 +54 13 19.53	–	–	–	-9.9	>20.00	–	–	>21.74	–	–	–	400	440	463	280		
JVS1208+0054	12 08 33.655 +00 54 21.93	–	–	–	-9.9	>20.00	–	–	>22.27	–	–	–	229	196	129	180		
JVS1208+5441	12 08 54.255 +54 41 58.18	0.15	-0.31	0.34	3.6	18.88	-1	-2.4	19.55	-1	-1.0	0.67	207	301	160	262		
JVS1209+4119	12 09 22.788 +41 19 41.37	0.16	-0.18	0.24	3.7	16.35	-1	-0.5	17.21	-1	-0.1	0.86	459	273	323	486		
JVS1209+2547	12 09 45.097 +25 47 03.75	-0.18	0.04	0.18	3.7	18.91	-1	-0.6	19.54	-1	0.2	0.63	342	401	497	439		
JVS1211+1820	12 11 06.688 +18 20 34.26	-0.06	0.13	0.14	3.9	18.53	-1	-1.8	19.30	-1	-0.5	0.77	381	363	172	282		
JVS1212+1925	12 12 56.095 +19 25 47.00	-0.28	0.27	0.39	3.7	17.90	-1	1.8	19.04	-1	1.9	1.14	502	547	421	343	1.2400	
JVS1214+0829	12 14 59.914 +08 29 22.53	0.10	-0.94	0.95	2.5	19.21	-1	0.4	19.99	-1	-0.3	0.78	225	230	405	254		
JVS1215+1654	12 15 03.979 +16 54 37.94	-0.01	-0.01	0.01	3.9	19.67	-1	0.2	21.48	-1	-1.0	1.81	322	298	–	424		
JVS1215+3448	12 15 55.601 +34 48 15.21	-0.14	0.17	0.22	4.0	>20.00	–	–	20.91	1	2.2	< 0.91	1123	1507	1729	726	0.8570	
JVS1217+5835	12 17 11.019 +58 35 26.23	0.19	-0.52	0.55	3.4	19.54	-1	-1.1	19.29	-1	1.6	-0.25	306	455	422	473	2.5470	
JVS1217+3007	12 17 52.084 +30 07 00.63	0.21	0.62	0.65	3.2	13.86	2	18.0	15.40	-1	1.6	1.54	478	593	535	335	0.1300	a
JVS1219+4829	12 19 06.416 +48 29 56.17	-0.05	0.01	0.05	3.9	17.83	-1	0.5	18.64	-1	1.9	0.81	638	618	859	657	1.0760	
JVS1220+7105	12 20 03.628 +71 05 31.16	0.31	-0.69	0.76	2.9	19.83	-1	-1.3	20.71	-1	1.3	0.88	293	252	235	187	0.4510	
JVS1220+2916	12 20 06.824 +29 16 50.71	-0.81	-0.85	1.17	1.8	9.02	2	74.4	-10.43	2	68.4	-19.45	372	385	543	152	0.0022	b
JVS1220+3431	12 20 08.290 +34 31 21.72	-0.07	-0.55	0.55	3.6	17.68	-1	-0.2	18.62	-1	-0.8	0.94	352	258	204	305		
JVS1220+3808	12 20 59.229 +38 08 55.69	–	–	–	-9.9	>20.00	–	–	>21.83	–	–	–	320	218	273	256		
JVS1221+4411	12 21 27.045 +44 11 29.67	-0.14	0.04	0.15	3.8	17.35	-1	1.3	18.08	-1	2.7	0.73	539	557	601	435	1.3450	
JVS1221+2813	12 21 31.690 +28 13 58.50	0.51	1.32	1.42	0.8	13.70	2	19.2	14.80	2	13.5	1.10	1085	731	2036	1200	0.1020	a
JVS1221+0510	12 21 52.334 +05 10 16.07	–	–	–	-9.9	>20.00	–	–	>21.83	–	–	–	279	297	275	168		
JVS1222+0413	12 22 22.550 +04 13 15.78	0.15	-0.48	0.50	3.5	17.43	-1	-0.4	18.03	-1	1.5	0.60	1351	800	667	1003	0.9650	
JVS1223+4611	12 23 39.337 +46 11 18.60	-0.05	-0.12	0.13	3.8	17.82	-1	0.7	18.73	-1	1.2	0.91	314	360	375	171		
JVS1223+0650	12 23 54.626 +06 50 02.59	-0.20	-0.43	0.47	3.5	>20.00	–	–	21.18	-1	-0.3	< 1.18	251	275	220	206		
JVS1224+4335	12 24 51.507 +43 35 19.28	-0.54	0.18	0.57	3.4	19.63	-1	-0.3	20.43	-1	0.3	0.80	213	366	393	251		
JVS1224+0330	12 24 52.421 +03 30 50.29	0.17	0.14	0.22	3.8	18.68	-1	-1.2	19.28	-1	1.8	0.60	1221	1280	1181	788	0.9570	
JVS1224+2122	12 24 54.460 +21 22 46.42	0.39	-0.42	0.57	3.2	17.50	-1	0.2	17.71	-1	-0.6	0.21	1154	2042	1974	1167	0.4350	
JVS1225+3914	12 25 50.569 +39 14 22.69	–	–	–	-9.9	>20.00	–	–	>22.42	–	–	–	506	643	540	377	0.6230	
JVS1228+3128	12 28 24.965 +31 28 37.62	-0.20	0.12	0.23	3.7	15.09	-1	-0.8	15.47	-1	-0.7	0.38	345	333	276	315	2.2190	

Table 1. Sourcelist I, continued...

J2000	Position (J2000)		Opt-Rad Offset			Log	APM Red			APM Blue			Color	GB6	NVSS	GB1.4	VLA	z	Com
Name	α	δ	$\Delta\alpha$	$\Delta\delta$	Δr	lhr	mag	cls	psf	mag	cls	psf	mag	mJy	mJy	mJy	mJy		
(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
JVS1228+3706	12 28 47.425	+37 06 12.08	-1.25	2.97	3.22	-9.9	17.40	1	12.7	18.57	1	7.7	1.17	856	383	192	868	1.5150	
JVS1228+4858	12 28 51.768	+48 58 01.29	0.28	-0.07	0.29	3.7	18.58	-1	-0.9	19.83	-1	0.0	1.25	350	387	441	270		
JVS1229+6335	12 29 06.026	+63 35 00.98	0.08	0.15	0.17	3.7	18.70	1	2.6	>22.05	–	–	> 3.35	296	384	336	168		
JVS1229+0203	12 29 06.699	+02 03 08.60	0.15	-0.27	0.31	3.6	13.00	-1	1.9	13.57	-1	3.0	0.57	43572	54991	50100	41319	0.1583	
JVS1230+5830	12 30 07.055	+58 30 07.77	–	–	–	-9.9	>20.00	–	–	>22.38	–	–	–	268	358	368	203		
JVS1230+2518	12 30 14.090	+25 18 07.14	-0.29	0.06	0.30	3.8	16.34	-1	1.8	17.39	-1	-0.4	1.05	324	243	653	319	0.1350	
JVS1231+0418	12 31 27.585	+04 18 01.90	0.04	-0.16	0.16	3.8	18.00	-1	-0.4	18.63	-1	2.0	0.63	373	339	203	294		
JVS1232+1809	12 32 13.810	+18 09 26.41	–	–	–	-9.9	>20.00	–	–	>21.91	–	–	–	200	317	291	120		
JVS1232+4821	12 32 34.787	+48 21 32.94	-0.93	0.12	0.94	2.5	>20.00	–	–	21.73	-1	-0.8	< 1.73	268	326	530	273		
JVS1234+4753	12 34 13.331	+47 53 51.23	0.21	-0.23	0.31	3.7	16.47	-1	0.9	17.49	-1	-1.7	1.02	268	356	371	183	0.3750	
JVS1235+3621	12 35 05.808	+36 21 19.30	0.63	0.05	0.63	3.3	19.06	-1	-0.2	20.32	-1	-1.0	1.26	234	154	109	200	1.6000	
JVS1236+3920	12 36 51.448	+39 20 27.69	–	–	–	-9.9	>20.00	–	–	>22.42	–	–	–	246	346	360	189		
JVS1237+1924	12 37 36.424	+19 24 40.63	-0.03	-0.35	0.35	3.7	19.51	-1	-0.3	20.03	-1	0.4	0.52	459	572	655	337		
JVS1238+0723	12 38 02.447	+07 23 21.83	–	–	–	-9.9	>20.00	–	–	>22.42	–	–	–	654	319	340	406		
JVS1239+0443	12 39 32.755	+04 43 05.22	-0.02	0.00	0.02	3.8	18.96	-1	0.1	19.78	-1	-0.6	0.82	319	354	235	299		
JVS1240+2405	12 40 47.987	+24 05 14.18	-0.60	-1.27	1.40	0.9	19.08	2	5.8	>22.11	–	–	> 3.03	330	563	547	237		i
JVS1241+5458	12 41 27.703	+54 58 19.04	–	–	–	-9.9	>20.00	–	–	>22.11	–	–	–	237	280	413	111		
JVS1242+3720	12 42 09.815	+37 20 05.68	–	–	–	-9.9	>20.00	–	–	>21.77	–	–	–	372	640	544	336	3.8180	c
JVS1242+3751	12 42 51.371	+37 51 00.01	0.12	-0.17	0.21	3.8	19.09	-1	-1.6	19.94	-1	-0.4	0.85	758	550	363	608	1.3160	
JVS1243+7442	12 43 45.032	+74 42 37.12	0.13	-0.09	0.16	3.6	18.58	-1	0.7	19.29	1	3.3	0.71	279	187	270	409		
JVS1248+5820	12 48 18.784	+58 20 28.71	0.03	-0.06	0.07	3.8	14.10	-1	2.3	15.41	-1	2.3	1.31	356	245	238	310		
JVS1250+1621	12 50 09.227	+16 21 21.46	-0.04	0.14	0.15	3.9	17.87	-1	-0.0	18.41	-1	-0.6	0.54	234	249	199	168		
JVS1250+1343	12 50 28.217	+13 43 40.39	-0.07	-0.09	0.11	3.8	17.10	-1	0.0	17.87	-1	0.2	0.77	280	173	135	152		
JVS1253+5301	12 53 11.920	+53 01 11.73	0.21	0.19	0.28	3.6	16.38	-1	-1.0	17.38	-1	-1.9	1.00	363	476	538	372		
JVS1254+1141	12 54 38.255	+11 41 05.90	-0.16	-0.17	0.23	3.7	16.41	-1	0.5	17.12	-1	-0.4	0.71	724	792	971	650	0.8710	
JVS1255+1817	12 55 31.762	+18 17 50.93	-0.08	0.29	0.30	3.8	>20.00	–	–	21.24	1	2.2	< 1.24	495	412	499	497		
JVS1256+5652	12 56 14.234	+56 52 25.23	0.92	0.30	0.97	2.4	11.08	-1	1.8	12.23	-1	1.8	1.15	415	309	288	255	0.0422	b
JVS1257+3229	12 57 57.231	+32 29 29.32	0.13	-0.83	0.84	2.8	18.46	1	3.4	19.41	-1	1.9	0.95	488	652	534	455		
JVS1259+5140	12 59 31.175	+51 40 56.25	-0.50	0.32	0.59	3.2	19.87	-1	-0.2	>21.42	–	–	> 1.55	313	266	284	183		
JVS1300+1417	13 00 41.037	+14 17 29.42	–	–	–	-9.9	>20.00	–	–	>21.93	–	–	–	320	566	638	136		
JVS1300+5029	13 00 41.247	+50 29 36.75	–	–	–	-9.9	>20.00	–	–	>21.42	–	–	–	442	410	524	339	1.5610	
JVS1302+4819	13 02 17.199	+48 19 17.57	0.00	0.08	0.08	3.7	17.00	-1	-1.1	17.71	-1	-2.6	0.71	218	129	179	121	0.8771	
JVS1302+5748	13 02 52.465	+57 48 37.61	0.39	-0.27	0.47	3.4	19.46	2	4.8	21.17	-1	0.3	1.71	601	320	305	885		
JVS1306+5529	13 06 03.349	+55 29 43.86	-0.03	0.89	0.89	2.7	17.58	-1	1.1	17.95	1	5.1	0.37	249	132	229	246	1.6000	
JVS1306+1113	13 06 19.248	+11 13 39.79	-0.27	-0.02	0.27	3.7	12.32	2	25.1	15.41	2	47.6	3.09	261	425	418	76		
JVS1308+4957	13 08 07.927	+49 57 53.45	0.62	0.15	0.64	3.1	18.36	-1	0.4	18.93	-1	-1.0	0.57	199	305	217	251		
JVS1309+5557	13 09 09.752	+55 57 38.19	-0.29	1.11	1.15	1.9	17.58	-1	1.6	18.25	-1	2.7	0.67	423	266	294	302	1.6290	
JVS1309+1154	13 09 33.933	+11 54 24.56	-0.15	-0.40	0.43	3.6	18.70	-1	-1.2	19.80	-1	0.4	1.10	1350	855	864	787		
JVS1310+0044	13 10 28.504	+00 44 08.87	-0.29	-0.19	0.35	3.7	>20.00	–	–	20.46	-1	0.0	< 0.46	201	202	267	245		
JVS1310+3220	13 10 28.665	+32 20 43.79	0.18	0.05	0.19	3.8	18.59	2	2.9	19.91	-1	-0.5	1.32	1447	1686	1611	2979	0.9960	
JVS1310+4653	13 10 53.590	+46 53 52.22	0.16	0.28	0.32	3.6	19.07	-1	-1.1	20.60	-1	0.9	1.53	362	130	–	361		
JVS1310+3233	13 10 59.403	+32 33 34.44	-0.09	-0.18	0.20	3.8	16.64	-1	-0.7	17.50	-1	1.7	0.86	870	374	413	605	1.6500	
JVS1311+5513	13 11 03.210	+55 13 54.33	0.51	0.53	0.74	3.0	19.13	-1	0.1	19.93	-1	0.7	0.80	487	424	207	505	0.9260	
JVS1311+1417	13 11 07.825	+14 17 46.66	0.47	-0.10	0.48	3.6	>20.00	–	–	20.65	-1	0.2	< 0.65	401	734	664	252		
JVS1311+1658	13 11 23.820	+16 58 44.22	–	–	–	-9.9	>20.00	–	–	>22.24	–	–	–	402	585	643	232		

Table 1. Sourcelist I, continued...

J2000 Name	Position (J2000) α	δ	Opt-Rad Offset $\Delta\alpha$	$\Delta\delta$	Δr	Log lhr	APM Red mag	cls	psf	APM Blue mag	cls	psf	Color mag	GB6 mJy	NVSS mJy	GB1.4 mJy	VLA mJy	z	Com
(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
JVS1312+4828	13 12 43.351	+48 28 30.93	-0.26	0.11	0.28	3.6	19.98	-1	1.3	>21.82	–	–	> 1.84	224	220	191	259	0.3130	
JVS1314+5306	13 14 43.829	+53 06 27.72	–	–	–	-9.9	>20.00	–	–	>22.01	–	–	–	419	247	232	303		
JVS1315+1220	13 15 01.854	+12 20 52.63	-1.73	-0.24	1.75	-0.7	17.92	1	13.8	19.75	2	5.0	1.83	264	241	190	197		a
JVS1316+1947	13 16 24.567	+19 47 04.45	0.13	-0.04	0.14	3.8	17.59	1	4.6	18.03	1	15.3	0.44	296	420	420	290	2.4700	
JVS1317+3425	13 17 36.493	+34 25 15.92	0.11	-0.04	0.12	3.8	17.96	-1	-0.8	18.52	-1	-1.3	0.56	336	534	638	553	1.0500	
JVS1319+5148	13 19 46.197	+51 48 05.77	0.30	0.27	0.40	3.6	16.80	-1	-0.4	17.47	-1	1.0	0.67	614	1093	1288	296	1.0600	
JVS1320+5036	13 20 42.207	+50 36 07.81	–	–	–	-9.9	>20.00	–	–	>22.01	–	–	–	222	373	351	128		
JVS1321+2216	13 21 11.201	+22 16 12.09	-0.43	-0.77	0.88	2.7	19.63	-1	0.9	20.13	-1	0.4	0.50	458	313	179	326		
JVS1322+3912	13 22 55.660	+39 12 07.98	-0.06	-0.48	0.48	3.4	17.06	-1	1.0	18.22	-1	0.2	1.16	208	104	111	175	2.9800	
JVS1324+4048	13 24 12.094	+40 48 11.77	0.34	-0.44	0.56	3.3	19.49	-1	0.2	22.05	-1	0.0	2.56	379	349	357	246	0.4960	
JVS1324+4743	13 24 29.342	+47 43 20.63	-0.49	-0.09	0.50	3.5	>20.00	–	–	21.63	-1	2.1	< 1.63	247	208	188	255	2.2600	
JVS1327+2210	13 27 00.861	+22 10 50.14	0.19	0.22	0.29	3.7	17.18	-1	1.4	18.56	-1	0.1	1.38	647	850	235	2139	1.4000	
JVS1327+4326	13 27 20.980	+43 26 27.99	-0.57	0.16	0.59	3.3	18.45	-1	-1.0	19.78	-1	1.5	1.33	576	664	703	462	2.0730	
JVS1327+5008	13 27 25.120	+50 08 49.17	-0.36	0.29	0.46	3.6	>20.00	–	–	21.73	1	2.3	< 1.73	274	293	249	299		
JVS1329+3154	13 29 52.866	+31 54 11.05	-0.29	0.07	0.30	3.7	19.06	-1	-1.7	19.95	-1	2.5	0.89	518	829	640	833		
JVS1331+0608	13 31 53.897	+06 08 23.39	–	–	–	-9.9	>20.00	–	–	>22.01	–	–	–	226	244	285	195		
JVS1332+4722	13 32 45.245	+47 22 22.67	0.09	0.15	0.17	3.8	18.86	-1	-1.1	19.30	-1	0.7	0.44	333	233	173	464		
JVS1333+1649	13 33 35.785	+16 49 04.03	0.06	0.21	0.22	3.7	16.61	-1	-0.1	16.98	-1	1.8	0.37	615	390	292	473	2.0840	
JVS1335+4542	13 35 21.961	+45 42 38.25	-0.10	0.00	0.10	3.9	17.58	-1	0.4	18.12	-1	-0.5	0.54	651	250	312	468	2.4490	
JVS1335+5844	13 35 25.927	+58 44 00.29	–	–	–	-9.9	>20.00	–	–	>21.99	–	–	–	740	292	893	766		
JVS1337+5501	13 37 49.641	+55 01 02.13	0.28	0.29	0.40	3.6	17.80	-1	0.4	18.33	-1	-0.8	0.53	753	707	717	573	1.0960	
JVS1339+6328	13 39 23.781	+63 28 58.42	0.14	-0.24	0.28	3.7	18.50	-1	-0.3	18.71	-1	0.7	0.21	419	482	500	272	2.5580	
JVS1340+3754	13 40 22.952	+37 54 43.84	-0.01	-0.11	0.11	3.8	17.85	-1	0.1	19.52	-1	-1.3	1.67	260	272	305	154	3.1030	
JVS1340+6923	13 40 48.008	+69 23 22.73	0.18	0.20	0.27	3.7	19.64	-1	-0.4	20.18	-1	-0.4	0.54	211	276	272	127	2.2550	
JVS1342+2709	13 42 08.376	+27 09 30.62	-1.97	-7.51	7.76	-9.9	14.25	2	14.6	15.77	2	13.6	1.52	347	262	245	283	1.1850	a
JVS1343+6855	13 43 00.551	+68 55 17.16	0.04	-0.31	0.31	3.6	17.23	-1	-1.3	17.31	-1	-0.3	0.08	204	208	201	170	1.4170	
JVS1343+6602	13 43 45.959	+66 02 25.76	0.45	-0.01	0.45	3.5	18.72	-1	0.7	19.53	-1	-0.2	0.81	299	213	886	578	0.7660	
JVS1344+6606	13 44 08.680	+66 06 11.64	0.26	-0.44	0.51	3.4	18.24	-1	-0.2	19.10	-1	-0.2	0.86	545	638	886	508	1.3510	
JVS1345+0706	13 45 49.315	+07 06 31.11	-0.51	-0.03	0.51	3.4	19.59	-1	-0.9	20.05	-1	-0.5	0.46	318	137	176	141		
JVS1347+1835	13 47 23.488	+18 35 37.58	-0.14	-0.09	0.17	3.8	19.22	-1	-1.6	19.38	-1	-1.0	0.16	441	364	389	391		
JVS1349+5341	13 49 34.658	+53 41 17.03	0.09	-0.27	0.28	3.7	16.79	-1	0.3	17.42	-1	-0.1	0.63	644	1069	1145	766	0.9800	
JVS1350+0940	13 50 22.136	+09 40 10.63	-0.68	-0.11	0.69	3.2	13.54	2	73.6	15.88	2	99.9	2.34	380	292	279	261		b
JVS1350+3034	13 50 52.737	+30 34 53.60	0.20	-0.07	0.21	3.7	18.83	-1	-1.4	19.57	-1	-0.5	0.74	302	322	274	613		
JVS1353+1435	13 53 22.841	+14 35 39.26	0.68	-1.21	1.39	0.9	18.21	-1	0.7	19.22	-1	0.4	1.01	293	446	393	194		
JVS1353+6324	13 53 58.845	+63 24 32.46	–	–	–	-9.9	>20.00	–	–	>22.11	–	–	–	214	339	396	109		
JVS1357+1919	13 57 04.439	+19 19 07.37	0.08	-0.19	0.21	3.6	15.03	1	3.2	15.70	-1	1.2	0.67	2618	2622	2629	1080	0.7200	
JVS1359+0159	13 59 27.147	+01 59 54.54	-0.38	-0.21	0.43	3.4	17.27	-1	2.2	17.77	-1	1.6	0.50	858	789	777	490	1.3290	
JVS1359+4011	13 59 38.096	+40 11 38.26	-0.04	-0.53	0.53	3.4	17.56	1	5.0	19.22	1	4.9	1.66	281	163	112	311		
JVS1400+0425	14 00 48.443	+04 25 30.87	-1.32	-0.03	1.32	1.1	>20.00	–	–	21.29	-1	0.9	< 1.29	267	322	286	158		
JVS1401+5835	14 01 45.699	+58 35 42.27	0.21	-0.19	0.28	3.6	18.90	-1	-0.7	19.92	-1	-0.5	1.02	209	141	–	210		
JVS1405+0415	14 05 01.122	+04 15 35.81	0.09	-0.51	0.52	3.4	18.63	-1	1.0	21.29	-1	-0.9	2.66	1008	933	560	858	3.1930	
JVS1405+4056	14 05 07.796	+40 56 57.85	0.46	-1.25	1.33	1.1	19.22	2	2.9	20.21	-1	-0.7	0.99	267	206	163	182		h
JVS1406+1859	14 06 06.579	+18 59 31.27	–	–	–	-9.9	>20.00	–	–	>22.15	–	–	–	214	183	178	109		
JVS1406+3433	14 06 53.845	+34 33 37.30	0.02	0.16	0.16	3.8	17.85	-1	-0.8	18.72	-1	-0.5	0.87	204	169	148	288		
JVS1407+2827	14 07 00.395	+28 27 14.69	-0.16	0.46	0.49	3.4	11.79	2	22.6	13.87	2	34.4	2.08	2353	816	763	1938	0.0769	b,e

Table 1. Sourcelist I, continued...

J2000	Position (J2000)		Opt-Rad Offset			Log	APM Red			APM Blue			Color	GB6	NVSS	GB1.4	VLA	z	Com
Name	α	δ	$\Delta\alpha$	$\Delta\delta$	Δr	lhr	mag	cls	psf	mag	cls	psf	mag	mJy	mJy	mJy	mJy		
(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
JVS1408+5613	14 08 12.946	+56 13 32.48	0.18	0.25	0.31	3.6	17.89	-1	0.6	18.23	-1	1.2	0.34	309	281	192	255		
JVS1408+6854	14 08 19.078	+68 54 50.82	0.81	-0.19	0.83	2.7	18.40	1	2.3	18.36	2	26.0	-0.04	228	182	240	210		k
JVS1410+0203	14 10 04.657	+02 03 06.88	-0.02	-0.05	0.05	3.7	17.75	-1	-2.2	18.62	-1	0.4	0.87	363	333	–	180		
JVS1410+0731	14 10 35.075	+07 31 21.48	–	–	–	-9.9	>20.00	–	–	>21.99	–	–	–	390	192	–	332		
JVS1412+1334	14 12 36.374	+13 34 38.17	–	–	–	-9.9	>20.00	–	–	>21.99	–	–	–	389	196	229	242		
JVS1413+1509	14 13 41.661	+15 09 39.53	–	–	–	-9.9	>20.00	–	–	>22.15	–	–	–	367	468	469	170		
JVS1415+3706	14 15 28.468	+37 06 21.18	0.19	-0.65	0.68	3.1	17.29	-1	-0.1	18.33	-1	0.2	1.04	381	399	366	278	2.3600	
JVS1415+1320	14 15 58.818	+13 20 23.72	0.63	-0.81	1.03	2.3	19.88	1	6.2	22.34	1	3.1	2.46	846	1091	1206	1553	0.2467	
JVS1417+4607	14 17 08.162	+46 07 05.45	0.18	0.12	0.22	3.7	17.50	-1	-0.8	18.13	-1	1.5	0.63	797	1028	1012	583	1.5520	
JVS1419+3821	14 19 46.613	+38 21 48.49	0.46	-0.45	0.64	3.2	18.49	-1	-0.0	18.29	2	18.5	-0.20	651	611	708	793	1.8200	
JVS1419+5423	14 19 46.599	+54 23 14.78	0.42	0.08	0.43	3.5	13.57	1	6.7	15.04	-1	0.8	1.47	1350	791	1555	2187	0.1510	
JVS1419+2706	14 19 59.298	+27 06 25.55	-0.22	-0.37	0.43	3.4	18.96	-1	0.3	20.20	-1	0.0	1.24	415	237	1349	350		
JVS1421+4645	14 21 23.073	+46 45 47.98	-0.07	-0.01	0.07	3.7	17.57	-1	-1.9	18.22	-1	-2.0	0.65	223	110	–	210	1.6650	
JVS1422+3223	14 22 30.378	+32 23 10.42	-0.12	0.03	0.12	3.7	17.59	-1	2.7	18.02	1	3.8	0.43	357	395	578	531	0.6850	
JVS1423+4802	14 23 06.155	+48 02 10.85	0.03	-0.16	0.16	3.7	18.85	-1	-1.2	19.19	-1	0.9	0.34	515	402	361	392	2.2200	
JVS1423+5055	14 23 14.186	+50 55 37.29	-0.23	-0.94	0.97	2.3	15.49	1	3.3	16.63	1	4.4	1.14	232	303	260	212	0.2740	
JVS1423+1159	14 23 30.102	+11 59 51.25	-0.19	-0.19	0.27	3.6	17.63	-1	-0.8	18.30	-1	-0.9	0.67	571	985	913	241	1.6110	
JVS1424+0434	14 24 09.502	+04 34 52.06	-0.40	-0.46	0.61	3.3	18.62	-1	-1.5	20.05	-1	-0.3	1.43	245	220	309	144		
JVS1425+1424	14 25 49.017	+14 24 56.92	-0.30	-0.37	0.48	3.4	18.22	-1	1.9	18.70	-1	1.4	0.48	847	483	179	560	0.7800	
JVS1426+3625	14 26 37.086	+36 25 09.59	0.19	-0.12	0.22	3.6	18.29	-1	-0.3	19.25	-1	0.8	0.96	435	420	194	621	1.0910	
JVS1427+2348	14 27 00.394	+23 48 00.04	0.50	0.22	0.55	3.2	15.38	-1	0.3	16.42	-1	-1.1	1.04	335	429	430	236		
JVS1429+5406	14 29 21.881	+54 06 11.13	-0.23	0.50	0.55	3.3	>20.00	–	–	20.65	-1	-1.0	< 0.65	716	1028	903	493	2.9910	
JVS1430+1043	14 30 09.740	+10 43 26.86	-0.43	0.31	0.53	3.3	18.28	-1	0.1	18.69	-1	-0.0	0.41	1194	289	255	822	1.7100	
JVS1430+4204	14 30 23.741	+42 04 36.50	–	–	–	-9.9	>20.00	–	–	>22.09	–	–	–	337	210	396	220	4.7150	c
JVS1430+3649	14 30 40.584	+36 49 03.90	0.24	-0.03	0.24	3.6	17.07	-1	1.4	17.91	-1	0.4	0.84	283	161	261	267		
JVS1431+3952	14 31 20.540	+39 52 41.54	0.05	0.00	0.05	3.7	15.66	-1	1.4	16.56	-1	-1.5	0.90	259	218	191	244		
JVS1434+4203	14 34 05.696	+42 03 16.01	0.00	0.11	0.11	3.7	17.80	-1	0.0	18.92	-1	1.8	1.12	280	308	276	295	1.2400	
JVS1434+1952	14 34 39.798	+19 52 00.78	0.31	-0.07	0.32	3.6	19.04	-1	0.2	19.55	1	3.1	0.51	692	407	830	636		
JVS1435+2021	14 35 21.944	+20 21 17.91	-0.05	-0.21	0.22	3.6	17.75	1	2.6	19.03	-1	2.2	1.28	205	366	374	94		
JVS1436+2321	14 36 40.984	+23 21 03.29	0.21	0.20	0.29	3.5	18.11	-1	-1.0	18.85	-1	0.7	0.74	764	796	808	633		
JVS1436+6336	14 36 45.804	+63 36 37.87	0.46	0.46	0.65	3.2	16.78	-1	1.3	17.35	-1	-1.4	0.57	757	951	1394	858	2.0680	
JVS1438+4418	14 38 28.506	+44 18 12.08	-0.18	-0.17	0.25	3.6	18.69	-1	-1.0	-34.73	1	-99.9	-53.42	265	211	174	220	2.1000	
JVS1438+3710	14 38 53.609	+37 10 35.42	0.42	-0.32	0.53	3.3	19.05	-1	0.3	19.77	-1	2.7	0.72	267	356	376	311		
JVS1442+3234	14 42 00.137	+32 34 20.29	0.55	-0.33	0.64	3.1	18.77	-1	0.8	19.78	-1	-0.2	1.01	331	412	468	331	2.1200	
JVS1443+6332	14 43 58.604	+63 32 26.37	0.26	0.35	0.44	3.6	17.27	-1	0.3	18.38	-1	0.1	1.11	442	689	684	392	1.3800	
JVS1444+1131	14 44 50.737	+11 31 56.40	-0.03	0.21	0.21	3.6	18.35	-1	0.2	18.61	1	4.9	0.26	209	290	306	140	0.8520	
JVS1446+1721	14 46 35.348	+17 21 07.60	0.55	-0.15	0.57	3.1	19.41	-1	-0.4	21.30	-1	0.1	1.89	677	737	563	686		
JVS1448+0402	14 48 50.359	+04 02 19.88	-0.32	-0.28	0.43	3.4	18.47	-1	-0.0	20.00	-1	-0.5	1.53	381	420	709	313		
JVS1450+0910	14 50 31.169	+09 10 27.95	-0.37	-2.51	2.54	-6.0	19.27	1	5.0	-20.80	-1	-1.5	-40.07	378	330	186	492		
JVS1451+6357	14 51 57.357	+63 57 19.20	-0.14	0.60	0.62	3.3	>20.00	–	–	21.12	-1	-0.5	< 1.12	240	362	355	178		
JVS1452+0627	14 52 39.386	+06 27 38.15	-0.15	-0.19	0.24	3.6	17.46	1	5.8	>21.88	–	–	> 4.42	201	296	399	121		k
JVS1453+1025	14 53 44.240	+10 25 57.57	-0.79	0.74	1.08	1.9	18.98	1	2.6	20.51	1	6.2	1.53	281	375	347	197		
JVS1453+2648	14 53 53.606	+26 48 33.47	0.24	-0.43	0.49	3.5	18.85	-1	-0.9	20.08	-1	0.4	1.23	351	518	620	679		
JVS1456+5048	14 56 08.120	+50 48 36.29	–	–	–	-9.9	>20.00	–	–	>21.88	–	–	–	232	224	270	264	0.4800	
JVS1457+0749	14 57 38.129	+07 49 54.72	-0.10	0.11	0.15	3.6	19.23	-1	-0.6	20.52	-1	-0.8	1.29	560	234	247	432		

Table 1. Sourcelist I, continued...

J2000	Position (J2000)	Opt-Rad Offset			Log	APM Red			APM Blue			Color	GB6	NVSS	GB1.4	VLA	z	Com
Name	α δ	$\Delta\alpha$	$\Delta\delta$	Δr	lhr	mag	cls	psf	mag	cls	psf	mag	mJy	mJy	mJy	mJy		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
JVS1457+0938	14 57 52.531 +09 38 16.55	–	–	–	-9.9	>20.00	–	–	>22.17	–	–	–	239	173	314	121		
JVS1458+3720	14 58 44.795 +37 20 21.62	-0.45	-0.31	0.55	3.4	18.22	-1	-0.7	19.92	-1	-1.5	1.70	542	214	335	370	0.3330	
JVS1458+0416	14 58 59.356 +04 16 13.81	-0.11	-0.03	0.11	3.7	18.49	1	4.2	20.15	-1	0.1	1.66	615	1070	995	600	0.3940	
JVS1500+0839	15 00 34.003 +08 39 41.81	–	–	–	-9.9	>20.00	–	–	>22.17	–	–	–	223	330	238	143		
JVS1500+4751	15 00 48.656 +47 51 15.53	-0.02	-0.08	0.08	3.7	17.13	-1	-2.1	18.01	-1	-0.7	0.88	475	431	401	686		
JVS1503+0917	15 03 00.900 +09 17 58.98	–	–	–	-9.9	>20.00	–	–	>22.17	–	–	–	282	418	406	191		
JVS1504+3249	15 04 07.525 +32 49 21.20	–	–	–	-9.9	>20.00	–	–	>21.81	–	–	–	203	337	301	218		
JVS1504+1029	15 04 24.980 +10 29 39.20	-0.43	-0.44	0.62	3.1	19.52	-1	0.4	19.61	-1	0.2	0.09	2325	1774	1554	1713	1.8390	
JVS1505+0326	15 05 06.477 +03 26 30.81	0.27	-0.34	0.43	3.4	18.20	1	3.2	19.16	-1	0.7	0.96	859	395	419	876	0.4110	
JVS1506+3730	15 06 09.529 +37 30 51.13	–	–	–	-9.9	>20.00	–	–	>21.81	–	–	–	974	937	1187	1024	0.6715	
JVS1506+4239	15 06 53.041 +42 39 23.04	-0.17	-0.42	0.45	3.5	>20.00	–	–	21.51	-1	1.2	< 1.51	405	378	435	410	0.5870	
JVS1507+1018	15 07 21.880 +10 18 44.99	1.59	-1.30	2.05	-2.7	12.30	1	4.6	13.89	1	5.3	1.59	221	403	368	155		b
JVS1507+0415	15 07 59.732 +04 15 11.98	3.01	-5.65	6.40	-9.9	6.65	-1	-3.7	8.86	-1	-2.1	2.21	240	166	–	169		b,a
JVS1508+1852	15 08 05.139 +18 52 43.25	-0.34	-1.95	1.98	-2.3	17.80	2	16.8	-18.73	-1	2.8	-36.53	243	220	184	135		a
JVS1510+5702	15 10 02.923 +57 02 43.37	0.13	-0.38	0.40	3.4	18.88	-1	-1.5	>22.33	–	–	> 3.45	292	202	149	153	4.3010	n
JVS1511+0518	15 11 41.264 +05 18 09.26	-0.16	-0.07	0.17	3.6	15.29	1	11.0	17.73	1	10.1	2.44	465	60	–	502		
JVS1516+0015	15 16 40.219 +00 15 01.89	-1.60	0.97	1.87	-1.7	12.00	2	19.9	14.76	2	36.9	2.76	1585	923	2690	1006	0.0523	b,a
JVS1516+1932	15 16 56.798 +19 32 13.02	-0.03	-0.01	0.03	3.6	16.40	-1	-0.6	17.31	-1	1.4	0.91	515	464	431	606	0.6500	
JVS1520+5635	15 20 19.156 +56 35 55.64	-0.10	-0.49	0.50	3.3	>20.00	–	–	20.22	-1	-1.2	< 0.22	246	435	374	90		
JVS1521+1756	15 21 17.580 +17 56 01.08	0.13	-0.09	0.16	3.6	17.97	-1	1.2	19.47	-1	-1.0	1.50	208	145	455	123		
JVS1521+0420	15 21 22.544 +04 20 30.12	0.04	0.09	0.10	3.6	8.88	1	30.3	12.82	1	37.1	3.94	397	412	–	219	0.0513	b
JVS1521+4336	15 21 49.615 +43 36 39.27	-0.36	0.36	0.51	3.3	18.09	-1	0.9	18.76	-1	-0.6	0.67	220	225	147	566	2.1800	
JVS1522+3144	15 22 09.995 +31 44 14.42	-0.16	0.21	0.26	3.7	19.57	-1	-0.6	20.21	-1	-2.0	0.64	302	347	463	488		
JVS1524+1521	15 24 41.613 +15 21 21.06	-0.45	0.14	0.47	3.3	18.18	1	2.8	18.73	-1	0.4	0.55	350	445	443	340	0.6280	
JVS1525+1107	15 25 02.937 +11 07 44.09	-0.25	-0.11	0.27	3.6	17.51	-1	2.3	18.48	-1	1.0	0.97	286	407	504	302	0.3310	
JVS1526+6650	15 26 42.874 +66 50 54.61	0.22	-0.07	0.23	3.6	17.15	-1	0.9	18.36	-1	1.5	1.21	404	88	426	312	3.0200	
JVS1527+3115	15 27 18.741 +31 15 24.42	0.31	0.36	0.48	3.4	18.42	-1	-1.2	18.94	-1	2.0	0.52	555	846	767	384	1.3800	
JVS1531+7206	15 31 33.576 +72 06 41.22	-3.34	1.45	3.64	-9.9	14.00	1	23.0	15.54	1	18.2	1.54	444	418	661	231	0.8990	a
JVS1534+4823	15 34 04.872 +48 23 40.90	0.22	0.05	0.23	3.6	17.55	-1	1.1	-17.67	2	13.8	-35.22	204	312	318	77		
JVS1534+0131	15 34 52.453 +01 31 04.21	0.00	0.02	0.02	3.5	18.67	-1	0.9	19.77	-1	0.4	1.10	1285	1343	1276	897	1.4350	
JVS1535+4957	15 35 52.040 +49 57 39.09	0.73	0.73	1.03	2.0	17.99	-1	0.5	18.32	-1	0.2	0.33	367	213	229	312	1.1210	
JVS1538+0019	15 38 15.954 +00 19 05.32	–	–	–	-9.9	>20.00	–	–	>21.93	–	–	–	619	695	688	425	3.4970	
JVS1539+0430	15 39 10.106 +04 30 51.24	-0.06	-0.58	0.58	3.0	19.44	-1	0.4	21.44	-1	1.9	2.00	217	102	–	106		
JVS1539+1604	15 39 25.099 +16 04 00.34	0.00	0.06	0.06	3.5	18.51	-1	-1.1	19.46	-1	-0.8	0.95	336	415	414	303		
JVS1539+2744	15 39 39.141 +27 44 38.28	–	–	–	-9.9	>20.00	–	–	>21.93	–	–	–	212	194	134	287		
JVS1540+1447	15 40 49.491 +14 47 45.89	0.05	-0.40	0.40	3.3	15.54	-1	-0.1	16.43	-1	0.2	0.89	1210	1386	1446	896	0.6050	
JVS1541+5348	15 41 25.464 +53 48 13.04	0.16	-0.30	0.34	3.5	18.28	-1	-1.3	18.62	-1	0.8	0.34	248	236	165	107	2.5300	
JVS1543+1847	15 43 43.806 +18 47 19.79	-0.45	-0.17	0.48	3.2	18.83	-1	-0.7	19.49	-1	-0.8	0.66	300	356	350	188		
JVS1545+5135	15 45 02.826 +51 35 00.87	-0.09	0.14	0.17	3.6	17.30	-1	-0.6	17.64	-1	-1.5	0.34	588	605	485	629	1.9240	
JVS1545+4751	15 45 08.532 +47 51 54.67	–	–	–	-9.9	>20.00	–	–	>21.93	–	–	–	437	685	665	347	1.2770	
JVS1545+3941	15 45 53.232 +39 41 46.86	-0.24	-0.59	0.64	3.0	18.34	1	7.3	19.09	-1	2.0	0.75	310	193	336	86		
JVS1546+0026	15 46 09.530 +00 26 24.61	-4.68	4.56	6.53	-9.9	18.45	2	4.8	21.41	-1	1.2	2.96	1309	1830	1808	909	0.5500	a
JVS1547+4937	15 47 21.140 +49 37 05.82	1.00	-2.38	2.58	-6.4	19.63	-1	-1.6	21.60	-1	0.4	1.97	523	956	936	360	0.7000	
JVS1549+5038	15 49 17.468 +50 38 05.79	-0.27	-0.10	0.29	3.5	17.46	-1	1.2	18.00	-1	-0.9	0.54	731	630	672	1266	2.1690	
JVS1549+0237	15 49 29.436 +02 37 01.16	0.19	-0.83	0.85	2.4	18.13	-1	1.3	18.54	-1	-0.4	0.41	1111	815	1144	947	0.4130	

Table 1. Sourcelist I, continued...

J2000	Position (J2000)		Opt-Rad Offset			Log	APM Red			APM Blue			Color	GB6	NVSS	GB1.4	VLA	z	Com
Name	α	δ	$\Delta\alpha$	$\Delta\delta$	Δr	lhr	mag	cls	psf	mag	cls	psf	mag	mJy	mJy	mJy	mJy		
(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
JVS1550+2717	15 50 11.823	+27 17 59.39	–	–	–	-9.9	>20.00	–	–	>21.81	–	–	–	228	283	235	141		
JVS1550+0527	15 50 35.268	+05 27 10.47	-0.10	-0.36	0.37	3.3	17.38	-1	-0.5	18.45	-1	-0.4	1.07	3702	2303	1958	1695	1.4220	
JVS1550+1120	15 50 43.594	+11 20 47.45	0.84	0.19	0.86	2.5	16.39	2	18.1	17.04	1	4.1	0.65	543	810	598	176	0.4360	a,
JVS1551+5806	15 51 58.208	+58 06 44.46	0.78	-0.44	0.90	2.4	15.56	1	3.6	16.47	-1	3.0	0.91	348	190	226	305	1.3190	
JVS1553+1256	15 53 32.698	+12 56 51.73	0.25	-0.17	0.30	3.5	17.40	-1	-0.5	17.90	-1	0.5	0.50	742	947	953	414	1.2900	
JVS1555+1111	15 55 43.043	+11 11 24.38	-0.15	0.19	0.24	3.4	14.00	-1	-1.6	14.79	-1	-0.6	0.79	510	312	391	515	0.3600	
JVS1558+5625	15 58 48.290	+56 25 14.12	0.13	0.11	0.17	3.6	16.65	-1	0.4	17.65	-1	-0.6	1.00	206	207	350	177	0.3000	
JVS1559+0304	15 59 30.972	+03 04 48.26	-1.01	0.70	1.23	1.2	19.76	-1	-0.7	>22.31	–	–	> 2.55	414	412	479	410	3.8910	
JVS1602+3326	16 02 07.263	+33 26 53.08	–	–	–	-9.9	>20.00	–	–	>21.73	–	–	–	1656	2990	2846	2244		
JVS1602+2418	16 02 13.841	+24 18 37.84	0.16	0.34	0.38	3.3	17.87	-1	-1.4	18.34	-1	1.3	0.47	214	236	428	177		
JVS1603+1554	16 03 38.065	+15 54 02.37	-2.58	1.81	3.15	-9.9	12.45	2	30.4	-16.03	2	51.2	-28.48	251	97	–	262	0.1095	b,a
JVS1603+1105	16 03 41.931	+11 05 48.68	0.12	-0.07	0.14	3.5	17.74	-1	2.0	19.09	-1	2.9	1.35	626	195	164	357		
JVS1603+5730	16 03 55.931	+57 30 54.41	-0.08	0.18	0.20	3.6	16.81	-1	-0.8	17.16	-1	-0.2	0.35	365	331	787	312	2.8500	
JVS1604+5714	16 04 37.357	+57 14 36.68	-0.09	0.04	0.10	3.6	17.10	-1	1.5	17.58	-1	0.1	0.48	329	496	475	491	0.7200	
JVS1604+1926	16 04 49.998	+19 26 20.97	–	–	–	-9.9	>20.00	–	–	>22.03	–	–	–	268	175	197	138		c
JVS1606+1814	16 06 16.028	+18 14 59.83	-0.61	-1.56	1.68	-0.8	10.39	1	4.8	11.06	1	9.9	0.67	258	312	540	191	0.0374	b
JVS1606+2717	16 06 58.304	+27 17 05.60	0.08	0.11	0.14	3.5	17.91	-1	-0.7	18.37	-1	-2.0	0.46	228	178	214	209		
JVS1608+5613	16 08 20.750	+56 13 56.38	-0.12	0.63	0.64	3.0	18.14	-1	1.1	18.22	-1	0.9	0.08	236	244	280	178		
JVS1608+4012	16 08 22.158	+40 12 17.84	0.11	0.37	0.39	3.4	19.18	-1	-1.5	19.68	-1	-0.2	0.50	240	201	241	130		
JVS1608+1029	16 08 46.204	+10 29 07.78	-0.13	0.39	0.41	3.3	17.61	-1	-1.3	18.37	-1	-0.1	0.76	1412	1392	1697	1816	1.2260	
JVS1610+2414	16 10 42.027	+24 14 49.05	0.25	0.30	0.39	3.3	18.88	-1	2.2	19.61	-1	0.2	0.73	404	330	181	383		
JVS1611+1856	16 11 49.051	+18 56 38.14	-0.13	0.50	0.52	3.1	19.53	1	3.0	19.75	-1	-0.4	0.22	380	336	–	321		
JVS1613+4223	16 13 04.801	+42 23 18.90	-0.86	-1.31	1.57	-0.1	>20.00	–	–	21.84	-1	2.0	< 1.84	200	41	–	135		a
JVS1613+3412	16 13 41.063	+34 12 47.90	-0.05	-0.13	0.14	3.6	17.26	-1	2.5	17.67	-1	-0.3	0.41	2324	4024	2871	3196	1.4010	
JVS1615+2130	16 15 31.098	+21 30 11.14	0.25	0.42	0.49	3.2	18.71	-1	1.4	19.63	-1	0.1	0.92	201	248	205	210		
JVS1616+4632	16 16 03.769	+46 32 25.23	-0.04	0.02	0.04	3.6	18.37	-1	0.2	19.10	1	4.6	0.73	237	78	–	126		
JVS1616+0459	16 16 37.559	+04 59 32.72	-0.23	0.22	0.32	3.4	19.62	-1	0.9	21.07	-1	-0.7	1.45	916	351	306	693	3.1970	
JVS1616+3621	16 16 55.583	+36 21 34.51	0.04	-0.22	0.22	3.5	18.01	-1	1.5	18.46	-1	0.0	0.45	286	330	519	243		
JVS1617+0408	16 17 13.587	+04 08 41.67	-0.37	0.49	0.61	2.9	>20.00	–	–	21.47	-1	-0.3	< 1.47	390	357	372	147		
JVS1617+0246	16 17 49.910	+02 46 43.09	0.38	-0.83	0.91	2.3	17.56	-1	-1.3	18.20	-1	-1.5	0.64	753	611	406	792	1.3390	
JVS1619+0613	16 19 03.691	+06 13 02.23	0.31	0.06	0.32	3.4	19.07	-1	-1.5	19.63	-1	-0.3	0.56	971	873	1111	566	2.0860	
JVS1619+2247	16 19 14.828	+22 47 47.91	0.60	0.92	1.10	1.7	19.85	1	3.4	20.93	-1	-1.4	1.08	353	475	368	644		
JVS1620+4901	16 20 31.224	+49 01 53.26	0.05	-0.09	0.10	3.6	17.79	-1	-0.1	18.29	-1	1.2	0.50	442	448	468	386	1.5130	
JVS1623+6624	16 23 04.525	+66 24 01.08	0.93	-3.66	3.78	-9.9	15.16	2	34.2	-18.77	-1	2.8	-33.93	481	155	204	287	0.2030	a
JVS1623+3909	16 23 07.621	+39 09 32.42	-0.94	-0.35	1.00	2.0	15.36	1	7.4	15.72	1	3.6	0.36	244	179	150	222	1.9800	
JVS1623+0115	16 23 43.251	+01 15 16.60	-0.23	-0.19	0.30	3.2	>20.00	–	–	21.26	-1	-1.0	< 1.26	201	193	245	159		
JVS1624+5741	16 24 24.807	+57 41 16.29	-0.09	-0.05	0.10	3.6	17.32	-1	1.9	18.66	-1	0.2	1.34	585	523	502	596	0.7890	
JVS1625+4134	16 25 57.669	+41 34 40.63	–	–	–	-9.9	>20.00	–	–	>21.98	–	–	–	1253	1677	1683	995	2.5500	
JVS1626+5809	16 26 37.240	+58 09 17.67	-2.10	7.65	7.93	-9.9	12.16	2	99.9	-11.74	2	40.5	-23.90	315	533	610	172		a,d
JVS1628+2247	16 28 15.245	+22 47 57.37	–	–	–	-9.9	>20.00	–	–	>21.74	–	–	–	396	466	369	255		
JVS1631+4927	16 31 16.540	+49 27 39.50	-0.23	-0.36	0.43	3.3	18.31	-1	1.4	20.16	-1	-0.1	1.85	422	311	323	626	0.5200	
JVS1635+3808	16 35 15.493	+38 08 04.50	0.22	0.28	0.36	3.4	17.35	-1	0.2	17.80	-1	1.1	0.45	3221	2726	1900	2410	1.8140	
JVS1635+6019	16 35 37.658	+60 19 56.75	–	–	–	-9.9	>20.00	–	–	>22.24	–	–	–	248	441	386	146		
JVS1636+2112	16 36 38.193	+21 12 55.66	0.50	0.06	0.50	3.1	18.15	-1	0.8	18.47	-1	-0.4	0.32	421	409	304	422		
JVS1637+4717	16 37 45.134	+47 17 33.84	0.03	-0.08	0.09	3.6	16.81	-1	-0.2	17.75	-1	-1.4	0.94	1244	1062	949	749	0.7400	

Table 1. Sourcelist I, continued...

J2000	Position (J2000)		Opt-Rad Offset			Log	APM Red			APM Blue			Color	GB6	NVSS	GB1.4	VLA	z	Com
Name	α	δ	$\Delta\alpha$	$\Delta\delta$	Δr	lhr	mag	cls	psf	mag	cls	psf	mag	mJy	mJy	mJy	mJy		
(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
JVS1638+5720	16 38 13.458	+57 20 23.99	-0.20	-0.10	0.22	3.4	16.29	-1	-0.1	16.42	-1	0.2	0.13	1750	1199	1230	1309	0.7506	
JVS1639+5357	16 39 39.845	+53 57 47.12	0.46	0.08	0.47	3.3	19.69	-1	-0.6	19.83	-1	0.2	0.14	345	322	310	298	1.9770	
JVS1639+1632	16 39 42.138	+16 32 21.78	-0.03	0.60	0.60	2.9	19.51	-1	-0.4	>21.59	–	–	> 2.08	322	11	871	166		
JVS1640+3946	16 40 29.633	+39 46 46.03	-0.07	-0.13	0.15	3.5	17.24	-1	-0.4	18.25	-1	-0.6	1.01	1117	952	657	1766	1.6600	
JVS1641+2257	16 41 25.231	+22 57 04.08	-0.33	-0.02	0.33	3.3	18.58	-1	1.6	18.68	-1	0.3	0.10	446	304	358	363		
JVS1642+6856	16 42 07.851	+68 56 39.75	0.22	-0.51	0.56	3.1	18.87	-1	-0.2	19.79	-1	-0.5	0.92	1527	1720	1513	1193	0.7510	
JVS1642+2523	16 42 40.412	+25 23 07.71	0.19	0.31	0.36	3.3	17.27	-1	-0.9	17.66	-1	-0.1	0.39	515	498	545	222		
JVS1642+3948	16 42 58.807	+39 48 36.99	0.04	-0.09	0.10	3.5	14.70	-1	-0.6	15.48	-1	-2.4	0.78	8719	7098	7886	5182	0.5928	
JVS1643+0732	16 43 47.099	+07 32 17.40	-1.61	0.56	1.70	-1.1	>20.00	–	–	21.91	-1	1.1	< 1.91	246	307	447	181		e
JVS1644+0720	16 44 16.329	+07 20 33.76	-0.26	-0.16	0.31	3.1	19.15	1	2.4	19.72	-1	-0.4	0.57	313	457	583	225		
JVS1644+1813	16 44 52.433	+18 13 17.27	0.33	-0.03	0.33	3.2	18.90	-1	0.1	19.45	-1	-0.9	0.55	392	338	178	202		
JVS1644+2536	16 44 59.066	+25 36 30.64	–	–	–	-9.9	>20.00	–	–	>21.74	–	–	–	400	726	700	247		
JVS1645+6330	16 45 58.550	+63 30 10.93	0.53	-0.93	1.07	1.9	19.42	-1	0.0	20.14	-1	1.8	0.72	481	217	298	214	2.3790	
JVS1646+7419	16 46 15.174	+74 19 11.09	–	–	–	-9.9	>20.00	–	–	>21.81	–	–	–	249	374	400	182		
JVS1646+4059	16 46 56.860	+40 59 17.18	0.36	0.17	0.40	3.3	>20.00	–	–	20.68	-1	-0.1	< 0.68	395	261	315	358	0.8350	
JVS1647+2705	16 47 33.603	+27 05 58.35	-0.84	-0.72	1.11	1.6	17.98	-1	0.6	18.89	-1	1.6	0.91	284	480	516	219		
JVS1648+2224	16 48 01.535	+22 24 33.11	–	–	–	-9.9	>20.00	–	–	>21.86	–	–	–	330	265	237	410		
JVS1652+3902	16 52 58.509	+39 02 49.82	-1.25	-0.46	1.33	0.8	19.87	-1	-0.5	21.20	-1	-0.0	1.33	330	262	335	336		
JVS1653+3945	16 53 52.219	+39 45 36.61	-1.90	-1.64	2.51	-6.0	6.99	1	2.6	10.97	2	9.6	3.98	1375	1561	1443	1165	0.0337	b
JVS1656+1826	16 56 34.089	+18 26 26.34	0.05	0.59	0.59	2.8	18.90	-1	0.5	19.36	-1	-0.2	0.46	349	237	–	275		
JVS1657+5705	16 57 20.712	+57 05 53.50	-0.05	-0.32	0.32	3.4	16.78	-1	1.2	17.21	-1	3.0	0.43	764	939	806	533	1.2810	
JVS1657+4808	16 57 46.880	+48 08 33.05	0.25	0.17	0.30	3.4	19.55	-1	0.0	>21.92	–	–	> 2.37	738	1035	983	767		
JVS1658+3443	16 58 01.416	+34 43 28.42	-0.18	-0.09	0.20	3.5	17.69	-1	-1.3	18.11	-1	-1.5	0.42	474	449	508	369	1.9360	
JVS1658+4737	16 58 02.783	+47 37 49.24	-0.05	-0.01	0.05	3.5	17.05	-1	-0.3	17.61	-1	-2.4	0.56	1244	859	783	1222	1.6220	
JVS1659+2629	16 59 24.150	+26 29 37.02	0.21	-0.08	0.22	3.3	17.26	1	5.0	17.91	-1	0.3	0.65	520	589	461	347	0.7950	
JVS1700+6830	17 00 09.297	+68 30 06.95	0.21	0.65	0.68	2.9	16.67	1	3.2	18.04	-1	0.5	1.37	380	338	300	377	0.3010	
JVS1707+4536	17 07 17.757	+45 36 10.57	0.20	0.06	0.21	3.5	16.92	-1	-1.6	17.28	-1	2.9	0.36	461	794	1069	329	0.6480	
JVS1707+1846	17 07 53.751	+18 46 39.03	-0.26	-0.40	0.48	3.0	19.61	-1	-1.5	19.72	-1	0.2	0.11	258	353	347	196	2.5180	
JVS1716+2152	17 16 11.191	+21 52 13.64	0.13	-0.52	0.54	2.9	19.27	-1	0.8	21.06	-1	0.7	1.79	703	680	656	573		
JVS1716+6836	17 16 13.938	+68 36 38.75	0.16	0.21	0.26	3.4	16.68	1	3.7	17.99	-1	0.1	1.31	838	489	412	829	0.7770	
JVS1721+3542	17 21 09.491	+35 42 16.07	-0.01	-0.24	0.24	3.3	16.44	-1	-0.0	17.23	-1	-0.4	0.79	784	820	841	584	0.2630	
JVS1722+5856	17 22 36.729	+58 56 22.26	-0.02	0.14	0.14	3.4	19.04	-1	-0.1	19.56	-1	-1.8	0.52	314	228	218	321		
JVS1722+6105	17 22 40.059	+61 05 59.80	0.35	0.01	0.35	3.3	18.95	1	4.3	19.10	-1	2.7	0.15	245	154	203	195		
JVS1722+2815	17 22 42.160	+28 15 00.01	-2.36	0.60	2.44	-5.6	17.35	2	13.1	-18.38	-1	0.8	-35.73	224	243	285	309		l
JVS1723+5236	17 23 39.749	+52 36 48.40	0.40	0.01	0.40	3.2	17.87	-1	0.4	18.05	-1	0.4	0.18	334	514	618	240		
JVS1724+4004	17 24 05.430	+40 04 36.46	-0.43	-0.12	0.45	3.0	>20.00	–	–	21.70	-1	-1.4	< 1.70	524	568	551	284	1.0490	
JVS1724+3303	17 24 14.198	+33 03 03.97	-0.21	0.08	0.22	3.3	18.85	-1	0.3	20.18	-1	1.2	1.33	475	414	324	532	1.8700	
JVS1724+6055	17 24 41.417	+60 55 55.73	–	–	–	-9.9	>20.00	–	–	>22.20	–	–	–	246	172	227	163		
JVS1727+5510	17 27 23.472	+55 10 53.55	-0.09	1.69	1.69	-0.9	16.31	2	34.9	18.90	2	21.5	2.59	274	143	168	254		a
JVS1727+4530	17 27 27.654	+45 30 39.73	-0.81	4.17	4.25	-9.9	16.02	2	12.3	16.82	2	14.6	0.80	935	914	425	1331	0.7170	a
JVS1728+3838	17 28 59.143	+38 38 26.46	0.40	0.51	0.65	2.8	16.59	-1	-0.0	17.00	-1	-0.2	0.41	219	241	235	184	1.3900	
JVS1734+3857	17 34 20.582	+38 57 51.45	0.04	-0.40	0.40	3.1	18.87	-1	-0.0	20.00	-1	-0.6	1.13	557	796	782	1192	0.9700	
JVS1735+3616	17 35 48.088	+36 16 45.61	-0.23	0.15	0.27	3.2	>20.00	–	–	20.94	-1	0.1	< 0.94	334	335	255	934	0.8030	
JVS1735+5049	17 35 49.008	+50 49 11.57	–	–	–	-9.9	>20.00	–	–	>21.85	–	–	–	755	431	743	838		
JVS1739+4955	17 39 27.389	+49 55 03.37	0.16	-0.05	0.17	3.4	17.48	-1	-0.2	18.49	-1	-1.3	1.01	428	531	567	580	1.5450	

Table 1. Sourcelist I, continued...

J2000 Name	Position (J2000) α	δ	Opt-Rad Offset $\Delta\alpha$	$\Delta\delta$	Δr	Log lhr	APM Red mag	cls	psf	APM Blue mag	cls	psf	Color mag	GB6 mJy	NVSS mJy	GB1.4 mJy	VLA mJy	z	Com
(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
JVS1739+4737	17 39 57.128	+47 37 58.36	1.45	2.81	3.16	-9.9	16.96	2	9.6	-18.76	2	4.1	-35.72	818	759	833	829		a
JVS1740+5211	17 40 36.980	+52 11 43.41	-0.08	0.16	0.18	3.4	17.73	-1	-0.8	18.27	-1	-1.2	0.54	1699	807	1979	1300	1.3750	
JVS1741+4751	17 41 34.823	+47 51 32.54	–	–	–	-9.9	>20.00	–	–	>21.85	–	–	–	212	48	–	197		
JVS1746+6226	17 46 14.034	+62 26 54.73	0.30	0.30	0.42	3.2	18.29	-1	-0.0	20.90	-1	-0.3	2.61	589	780	764	480	3.8890	
JVS1747+4658	17 47 26.647	+46 58 50.92	0.25	-0.02	0.25	3.3	>20.00	–	–	21.32	-1	0.2	< 1.32	669	304	426	871		
JVS1748+7005	17 48 32.839	+70 05 50.77	-0.31	-0.48	0.57	3.0	16.06	-1	-1.6	16.93	-1	-1.5	0.87	715	735	1305	558	0.7700	
JVS1754+6452	17 54 07.593	+64 52 02.64	-0.18	-0.17	0.25	3.4	18.30	1	3.6	19.82	-1	2.4	1.52	257	139	123	196		
JVS1755+6236	17 55 48.440	+62 36 44.12	-0.15	-0.91	0.92	2.2	6.11	1	4.9	-8.04	2	23.1	-14.15	203	288	–	142	0.0276	b
JVS2123+0535	21 23 44.515	+05 35 22.10	-0.10	-0.39	0.40	3.1	17.14	-1	1.0	18.31	-1	-1.9	1.17	2784	793	1142	1446	1.8780	
JVS2125+0441	21 25 29.256	+04 41 35.53	–	–	–	-9.9	>20.00	–	–	>21.89	–	–	–	244	267	199	268		
JVS2128+0238	21 28 08.255	+02 38 24.79	–	–	–	-9.9	>20.00	–	–	>21.83	–	–	–	217	331	301	144		c
JVS2136+0041	21 36 38.584	+00 41 54.20	-0.24	0.00	0.24	3.4	16.26	-1	0.0	16.97	-1	1.6	0.71	10938	3472	3728	7202	1.9320	
JVS2139+0122	21 39 42.509	+01 22 27.15	-0.80	-0.23	0.83	2.4	18.79	-1	1.4	19.68	-1	-0.8	0.89	202	165	–	266		
JVS2145+1115	21 45 18.773	+11 15 27.30	-0.37	-0.12	0.39	3.2	18.21	-1	2.1	18.80	-1	-1.0	0.59	414	396	348	393	0.5500	
JVS2147+0929	21 47 10.160	+09 29 46.68	0.27	-0.16	0.31	3.3	18.10	-1	0.9	18.66	-1	1.0	0.56	1233	959	803	1058	1.1130	
JVS2147+0830	21 47 55.218	+08 30 11.90	0.34	-0.57	0.66	2.8	18.47	-1	-0.1	18.96	-1	0.5	0.49	351	513	423	224	2.6100	
JVS2148+0657	21 48 05.456	+06 57 38.61	0.18	-0.23	0.29	3.3	16.05	-1	-1.9	16.75	-1	-0.6	0.70	4135	2534	2884	7397	0.9900	
JVS2148+0211	21 48 39.878	+02 11 26.83	–	–	–	-9.9	>20.00	–	–	>21.83	–	–	–	204	22	–	206		
JVS2149+0756	21 49 35.262	+07 56 25.35	0.21	-0.24	0.32	3.3	18.50	-1	-0.4	18.75	-1	1.8	0.25	420	736	618	284	0.5200	
JVS2149+0322	21 49 41.868	+03 22 51.43	0.06	0.43	0.43	3.2	19.05	-1	-0.1	20.17	-1	0.5	1.12	230	220	310	85		
JVS2151+0709	21 51 31.429	+07 09 26.79	-0.13	-0.38	0.40	3.2	17.76	-1	1.8	18.64	-1	0.7	0.88	794	880	692	830	1.3640	
JVS2151+0552	21 51 37.877	+05 52 12.96	–	–	–	-9.9	>20.00	–	–	>21.19	–	–	–	892	683	768	618	0.7400	
JVS2153+1241	21 53 04.662	+12 41 05.21	-0.24	0.03	0.24	3.3	19.69	-1	1.4	19.89	-1	2.9	0.20	290	431	422	184		
JVS2200+1030	22 00 07.931	+10 30 07.90	-0.20	-0.59	0.62	2.9	>20.00	–	–	21.72	2	1.5	< 1.72	243	255	195	199		i
JVS2201+0312	22 01 27.506	+03 12 15.14	–	–	–	-9.9	>20.00	–	–	>21.19	–	–	–	277	303	247	257		
JVS2203+1007	22 03 30.951	+10 07 42.58	–	–	–	-9.9	>20.00	–	–	>22.02	–	–	–	323	114	–	235		
JVS2207+1652	22 07 52.865	+16 52 17.84	-0.03	0.16	0.16	3.4	19.21	-1	-0.4	19.55	-1	1.0	0.34	423	215	177	280		
JVS2210+0857	22 10 06.054	+08 57 29.55	10.51	0.37	10.52	-9.9	19.54	-1	1.6	>22.06	–	–	> 2.52	215	139	146	138		i,j
JVS2212+0646	22 12 50.842	+06 46 08.72	0.09	0.05	0.10	3.6	18.59	-1	-0.7	19.98	-1	-1.0	1.39	370	326	296	222		
JVS2213+0847	22 13 21.734	+08 47 29.95	-0.08	0.14	0.16	3.5	16.92	1	3.8	18.40	-1	0.5	1.48	205	264	226	146		
JVS2214+0711	22 14 08.866	+07 11 42.38	0.03	0.37	0.37	3.4	16.97	1	4.5	18.65	-1	-1.9	1.68	412	329	275	289		
JVS2217+0220	22 17 48.235	+02 20 10.69	–	–	–	-9.9	>20.00	–	–	>22.06	–	–	–	513	780	783	558	3.5500	c
JVS2219+1806	22 19 14.093	+18 06 35.62	0.11	-0.22	0.25	3.4	18.62	-1	-1.4	19.59	-1	-2.3	0.97	238	158	161	357		
JVS2222+1213	22 22 52.989	+12 13 49.82	-0.30	-1.48	1.51	0.2	19.78	2	5.8	20.96	-1	0.2	1.18	375	366	438	280		a
JVS2225+2118	22 25 38.052	+21 18 06.46	-0.50	-0.03	0.50	3.1	17.30	-1	-0.5	17.68	-1	-0.1	0.38	1024	1837	1993	1420	1.9590	
JVS2226+0052	22 26 46.538	+00 52 11.30	–	–	–	-9.9	>20.00	–	–	>21.55	–	–	–	473	615	653	518		c
JVS2229+0114	22 29 51.802	+01 14 56.71	–	–	–	-9.9	>20.00	–	–	>21.55	–	–	–	306	238	240	207		
JVS2232+1143	22 32 36.411	+11 43 50.89	-0.09	-0.30	0.31	3.4	17.19	-1	1.3	17.85	-1	1.5	0.66	3967	7201	6634	3032	1.0370	
JVS2233+1008	22 33 58.451	+10 08 52.10	0.19	0.06	0.20	3.5	18.37	-1	-0.4	18.62	-1	1.4	0.25	326	360	454	287		
JVS2238+1242	22 38 34.607	+12 42 50.78	0.12	-0.29	0.31	3.4	19.27	-1	-1.6	20.07	-1	0.1	0.80	242	235	208	239		
JVS2241+0953	22 41 49.717	+09 53 52.43	-0.06	-0.66	0.66	2.9	18.72	-1	-0.9	19.73	-1	-0.2	1.01	675	480	389	626	1.7070	
JVS2245+0324	22 45 28.283	+03 24 08.86	-0.92	0.81	1.23	1.4	17.81	-1	2.4	18.20	2	15.8	0.39	492	480	204	624	1.3400	k
JVS2245+0500	22 45 53.654	+05 00 56.96	-0.30	-0.58	0.65	3.1	18.36	-1	0.5	18.59	-1	-0.6	0.23	351	391	441	350		
JVS2247+0310	22 47 58.679	+03 10 42.35	-0.84	-0.29	0.89	2.5	19.52	-1	-0.9	>21.56	–	–	> 2.04	588	817	906	796		
JVS2249+2107	22 49 00.566	+21 07 02.88	-0.66	0.01	0.66	2.9	18.92	-1	1.8	19.95	-1	-0.5	1.03	724	773	663	714		

Table 1. Sourcelist I, continued...

J2000 Name	Position (J2000) α	δ	Opt-Rad Offset $\Delta\alpha$	$\Delta\delta$	Δr	Log lhr	APM Red mag	cls	psf	APM Blue mag	cls	psf	Color mag	GB6 mJy	NVSS mJy	GB1.4 mJy	VLA mJy	z	Com
(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
JVS2253+1942	22 53 07.367	+19 42 34.64	-0.07	-0.07	0.10	3.5	15.40	1	3.3	16.33	-1	0.4	0.93	357	263	229	355	0.2840	
JVS2253+0236	22 53 21.107	+02 36 13.04	–	–	–	-9.9	>20.00	–	–	>21.56	–	–	–	245	292	271	196		
JVS2253+1608	22 53 57.746	+16 08 53.56	-0.05	-0.20	0.21	3.5	13.27	-1	-1.3	>22.17	–	–	> 8.90	14468	12656	13901	10503	0.8590	k
JVS2254+0054	22 54 04.407	+00 54 20.97	–	–	–	-9.9	>20.00	–	–	>21.56	–	–	–	419	611	554	344		
JVS2256+2301	22 56 10.681	+23 01 45.21	-0.34	-0.24	0.42	3.3	18.52	-1	0.0	18.52	-1	-0.2	0.00	211	279	378	150		
JVS2257+0743	22 57 17.306	+07 43 12.31	0.02	0.22	0.22	3.6	15.45	1	6.2	17.14	-1	-0.2	1.69	414	393	345	288	0.1900	
JVS2257+0243	22 57 17.567	+02 43 17.51	0.39	-0.06	0.39	3.5	17.13	-1	0.2	17.56	-1	-0.6	0.43	503	209	236	273	2.0810	
JVS2258+0203	22 58 57.756	+02 03 42.29	0.17	-0.06	0.18	3.7	18.01	-1	0.9	18.76	-1	-0.1	0.75	301	454	441	210	2.6630	
JVS2300+0337	23 00 40.883	+03 37 10.85	0.35	0.41	0.54	3.3	19.27	-1	-0.2	19.52	-1	0.1	0.25	617	509	451	312		
JVS2304+0620	23 04 28.293	+06 20 08.32	0.07	-0.25	0.26	3.6	17.69	-1	0.1	18.18	2	2.1	0.49	561	537	625	317	1.2680	
JVS2304+2331	23 04 36.437	+23 31 07.65	-0.12	0.08	0.14	3.5	18.12	-1	0.3	19.05	-1	-1.7	0.93	558	611	457	424		
JVS2307+1450	23 07 34.003	+14 50 17.97	-0.37	-0.61	0.71	2.9	19.36	-1	0.0	>21.65	–	–	> 2.29	219	109	–	265		
JVS2308+0946	23 08 44.171	+09 46 26.10	0.04	0.36	0.36	3.5	>20.00	–	–	20.70	1	3.9	< 0.70	494	146	453	120		
JVS2316+1618	23 16 39.701	+16 18 06.74	0.20	-0.16	0.26	3.5	16.83	-1	0.8	17.44	-1	-1.8	0.61	403	382	535	208	0.6590	
JVS2320+0513	23 20 44.854	+05 13 49.96	0.02	-0.27	0.27	3.6	18.21	-1	0.5	18.65	-1	-0.3	0.44	1048	541	850	387	0.6220	
JVS2321+2732	23 21 59.863	+27 32 46.45	-0.02	0.49	0.49	3.2	>20.00	–	–	20.25	1	3.4	< 0.25	962	1318	1154	502	1.2530	a,d
JVS2322+1843	23 22 28.572	+18 43 24.90	-0.17	-0.15	0.23	3.5	18.66	-1	-1.3	19.23	-1	-0.8	0.57	322	339	308	330		
JVS2322+0812	23 22 36.091	+08 12 01.60	-3.42	-3.78	5.10	-9.9	15.41	2	17.5	16.52	1	15.5	1.11	857	1154	1061	592	2.0900	a,e
JVS2323+2035	23 23 20.345	+20 35 23.52	0.46	0.63	0.78	2.7	9.17	-1	2.5	11.78	1	11.0	2.61	346	377	868	132	0.0380	b,d
JVS2326+0112	23 26 25.643	+01 12 08.68	–	–	–	-9.9	>20.00	–	–	>21.65	–	–	–	231	204	216	214		c
JVS2326+1507	23 26 52.889	+15 07 39.73	-0.20	-0.13	0.24	3.6	18.88	-1	0.5	19.80	-1	-0.4	0.92	377	383	383	192		
JVS2327+1524	23 27 21.969	+15 24 37.33	-0.29	0.35	0.45	3.4	>20.00	–	–	14.95	1	15.1	<-5.05	301	202	406	241	0.0400	b,a
JVS2327+0940	23 27 33.580	+09 40 09.46	0.16	0.52	0.54	3.3	18.11	-1	-0.9	18.31	-1	0.0	0.20	643	741	687	736		
JVS2328+1929	23 28 24.879	+19 29 58.07	–	–	–	-9.9	>20.00	–	–	>21.61	–	–	–	306	293	297	138		
JVS2329+0834	23 29 05.789	+08 34 15.85	–	–	–	-9.9	>20.00	–	–	>21.63	–	–	–	273	173	294	216		
JVS2330+1100	23 30 40.855	+11 00 18.71	-0.11	-0.53	0.54	3.3	17.90	-1	-0.2	18.47	-1	-0.4	0.57	1194	1214	1075	945	1.4890	
JVS2331+0705	23 31 55.521	+07 05 42.07	5.47	3.44	6.46	-9.9	16.27	1	3.8	18.53	1	6.3	2.26	322	535	478	201		a
JVS2332+0838	23 32 57.594	+08 38 10.42	–	–	–	-9.9	>20.00	–	–	>21.80	–	–	–	278	328	438	283		
JVS2334+0736	23 34 12.830	+07 36 27.54	-0.29	0.03	0.29	3.6	15.25	-1	-0.3	16.04	-1	2.5	0.79	1374	630	602	971		
JVS2340+2708	23 40 00.842	+27 08 01.37	1.66	1.37	2.15	-3.4	10.83	1	10.8	13.43	1	13.4	2.60	238	395	620	73	0.0315	b
JVS2340+2641	23 40 29.029	+26 41 56.80	-10.91	1.12	10.97	-9.9	18.34	-1	0.6	>21.41	–	–	> 3.07	890	1030	965	769		c
JVS2341+0018	23 41 06.911	+00 18 33.30	-0.28	0.16	0.32	3.6	16.03	1	25.0	18.58	1	11.3	2.55	313	434	396	218	0.2766	
JVS2341+1928	23 41 18.797	+19 28 05.50	-0.01	-0.34	0.34	3.4	17.35	-1	0.7	17.94	-1	-0.1	0.59	236	379	409	205	1.7800	
JVS2343+2339	23 43 12.389	+23 39 45.65	0.06	0.24	0.25	3.5	18.61	-1	-0.2	19.47	-1	-0.2	0.86	301	362	251	445		
JVS2346+0930	23 46 36.838	+09 30 45.51	0.00	0.18	0.18	3.7	15.78	-1	1.7	16.15	-1	2.0	0.37	1392	1804	2051	1403	0.6770	
JVS2346+0705	23 46 39.934	+07 05 06.83	0.12	0.04	0.13	3.7	15.43	1	4.3	17.04	-1	1.6	1.61	230	314	335	217		
JVS2346+3011	23 46 46.252	+30 11 59.21	–	–	–	-9.9	>20.00	–	–	>21.91	–	–	–	269	414	419	169		
JVS2347+1135	23 47 36.404	+11 35 17.89	-0.35	-0.04	0.35	3.5	18.31	2	10.5	>21.83	–	–	> 3.52	228	340	313	153		
JVS2349+0534	23 49 21.049	+05 34 39.85	0.27	0.35	0.44	3.5	17.98	-1	-0.8	18.99	-1	0.9	1.01	349	435	479	259		
JVS2350+1106	23 50 02.035	+11 06 36.71	0.24	-0.24	0.34	3.5	19.73	-1	-0.7	21.11	-1	-1.2	1.38	247	273	281	258		
JVS2350+0812	23 50 10.082	+08 12 55.26	0.26	0.07	0.27	3.6	15.60	-1	0.6	16.37	1	3.0	0.77	303	381	330	169	1.7000	
JVS2358+1955	23 58 46.083	+19 55 20.32	-0.13	0.11	0.17	3.6	17.04	-1	-0.4	17.54	-1	-1.1	0.50	708	672	551	516		

Table 2. Sourcelist II

J2000 Name	Position (J2000) α	δ	Opt-Rad Offset $\Delta\alpha$	$\Delta\delta$	Δr	Log lhr	APM Red mag	cls	psf	APM Blue mag	cls	psf	Color mag	GB6 mJy	NVSS mJy	GB1.4 mJy	VLA mJy	z	Com
(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
CLS0007+1027	00 07 55.675	+10 27 44.27	–	–	–	-9.9	>20.00	–	–	>21.83	–	–	–	246	306	404	193		s
CLS0037+0808	00 37 32.197	+08 08 13.03	–	–	–	-9.9	>20.00	–	–	>21.83	–	–	–	288	96	–	235		
CLS0038+1227	00 38 18.017	+12 27 31.21	-1.16	-1.47	1.87	-1.5	16.27	-1	0.7	17.34	-1	2.5	1.07	665	1034	1002	446	0.0900	
CLS0039+0319	00 39 18.582	+03 19 52.52	4.97	-5.02	7.06	-9.9	11.14	-1	0.2	12.74	-1	1.7	1.60	637	1013	1727	50	0.0145	b,p
CLS0040+0942	00 40 18.304	+09 42 41.77	0.69	-0.55	0.88	2.6	19.70	-1	1.5	20.13	-1	0.0	0.43	219	393	347	154		
CLS0049+2253	00 49 01.368	+22 53 15.37	0.12	-0.86	0.87	2.5	16.33	2	15.2	18.60	1	4.3	2.27	241	435	487	115		
CLS0106+2325	01 06 46.996	+23 25 09.90	–	–	–	-9.9	>20.00	–	–	>21.93	–	–	–	268	380	694	240		q
CLS0106+2539	01 06 10.965	+25 39 30.47	-1.04	0.22	1.06	2.0	16.04	1	27.1	19.17	1	8.5	3.13	214	130	–	260		a
CLS0111+1324	01 11 36.567	+13 24 37.54	-0.88	-1.48	1.72	-0.6	18.89	1	2.5	19.77	-1	0.8	0.88	344	587	670	165		
CLS0112+1529	01 12 59.573	+15 29 28.74	-0.15	0.16	0.22	3.8	9.09	1	5.0	11.46	1	15.4	2.37	261	127	1070	8	0.0438	b,p
CLS0112+2020	01 12 10.187	+20 20 21.78	-0.09	-0.08	0.12	3.7	16.50	-1	-0.1	16.75	-1	0.1	0.25	281	471	407	160	0.7460	
CLS0117+0741	01 17 26.799	+07 41 46.72	–	–	–	-9.9	>20.00	–	–	>22.35	–	–	–	866	1574	1389	564	0.3430	
CLS0129+1446	01 29 55.347	+14 46 47.84	0.33	-0.02	0.33	3.7	18.85	-1	-0.1	19.16	-1	1.0	0.31	570	757	706	379		
CLS0133+2006	01 33 37.713	+20 06 00.47	–	–	–	-9.9	>20.00	–	–	>22.35	–	–	–	204	340	392	161		
CLS0144+2705	01 44 33.553	+27 05 03.13	-0.41	0.31	0.51	3.3	19.86	1	2.7	>21.41	–	–	> 1.55	263	216	151	193		
CLS0217+0837	02 17 17.125	+08 37 03.89	0.02	0.01	0.02	3.9	15.72	1	3.1	17.02	1	5.0	1.30	462	315	343	323	1.4000	
CLS0222+0952	02 22 15.609	+09 52 37.82	–	–	–	-9.9	>20.00	–	–	>21.41	–	–	–	262	441	409	205		
CLS0225+1134	02 25 41.910	+11 34 25.46	-0.22	-0.18	0.28	3.7	18.00	-1	2.3	18.62	-1	-0.6	0.62	512	499	391	306	0.9240	
CLS0229+0851	02 29 15.535	+08 51 25.25	0.18	-0.83	0.85	2.8	18.08	-1	2.8	20.52	1	3.0	2.44	329	609	607	145		
CLS0237+0919	02 37 40.530	+09 19 01.64	0.24	-0.29	0.38	3.7	19.40	-1	-0.9	21.30	-1	-0.1	1.90	533	850	902	305		
CLS0241+0844	02 41 06.163	+08 44 16.92	-0.80	-2.22	2.36	-4.5	11.18	1	3.9	13.77	2	29.1	2.59	333	413	–	32	0.0208	b,p
CLS0257+0601	02 57 41.564	+06 01 36.85	–	–	–	-9.9	>20.00	–	–	>21.88	–	–	–	1525	1294	6098	79		
CLS0327+0233	03 27 54.195	+02 33 42.02	-0.33	0.28	0.43	3.5	12.10	-1	2.5	13.14	1	15.1	1.04	1594	142	4739	171	0.0302	b,s
CLS0345+1217	03 45 04.414	+12 17 02.33	–	–	–	-9.9	>20.00	–	–	>21.05	–	–	–	211	311	359	187		
CLS0805+6144	08 05 18.179	+61 44 23.70	0.03	-0.12	0.12	3.6	19.84	-1	0.2	21.60	-1	-2.0	1.76	1054	807	–	725		
CLS0817+3227	08 17 28.084	+32 27 18.59	–	–	–	-9.9	>20.00	–	–	>21.80	–	–	–	581	460	564	381		
CLS0817+5537	08 17 40.464	+55 37 32.02	–	–	–	-9.9	>20.00	–	–	>21.81	–	–	–	252	182	178	196		
CLS0819+3226	08 19 02.331	+32 26 37.27	-0.51	-0.17	0.54	3.2	19.44	1	5.8	20.57	-1	0.2	1.13	209	194	150	272		
CLS0824+3916	08 24 55.483	+39 16 41.90	-0.47	-0.20	0.51	3.3	17.41	-1	1.2	17.92	-1	-0.3	0.51	1031	1481	1381	1444	1.2160	
CLS0831+3218	08 31 27.962	+32 18 21.70	5.47	64.70	64.93	-9.9	10.74	2	32.9	13.21	2	41.9	2.47	445	128	2074	–	0.0527	p
CLS0832+4224	08 32 48.401	+42 24 59.07	-0.24	0.45	0.51	3.3	18.64	-1	-1.6	19.32	-1	-1.2	0.68	255	455	504	139	1.0510	
CLS0836+2139	08 36 16.219	+21 39 03.58	-0.52	-0.68	0.86	2.6	18.96	-1	-0.1	19.29	-1	0.6	0.33	203	132	–	128		
CLS0847+3147	08 47 59.047	+31 47 08.26	0.03	0.14	0.14	3.7	11.85	1	6.3	12.78	1	37.0	0.93	328	73	1372	39	0.0674	
CLS0900+4108	09 00 21.433	+41 08 22.99	0.20	0.11	0.23	3.6	>20.00	–	–	20.83	-1	-1.1	< 0.83	208	271	222	313		l
CLS0904+4238	09 04 15.627	+42 38 04.77	0.07	0.08	0.11	3.6	19.90	-1	-0.2	21.65	-1	-1.4	1.75	747	1247	1396	458		
CLS0909+0835	09 09 12.157	+08 35 41.11	-0.53	-0.58	0.79	2.9	17.66	-1	0.3	18.36	-1	1.9	0.70	260	132	121	156		
CLS0913+0436	09 13 47.155	+04 36 30.69	-1.55	4.30	4.57	-9.9	16.95	2	62.3	>21.36	–	–	> 4.41	211	380	325	99		l
CLS0913+4402	09 13 53.366	+44 02 57.18	–	–	–	-9.9	>20.00	–	–	>21.36	–	–	–	222	227	259	123		q
CLS0914+1006	09 14 19.532	+10 06 40.58	0.00	-0.26	0.26	3.7	18.51	1	6.2	21.72	-1	-0.9	3.21	200	359	434	72		p
CLS0919+3324	09 19 08.790	+33 24 41.95	-0.49	0.01	0.49	3.5	>20.00	–	–	21.47	-1	0.1	< 1.47	239	178	208	331		
CLS0921+7136	09 21 23.946	+71 36 12.40	-0.01	-0.21	0.21	3.5	17.53	1	5.3	18.38	-1	-1.5	0.85	295	490	384	173	0.5940	
CLS0923+2815	09 23 51.522	+28 15 24.97	0.37	-0.04	0.37	3.5	17.98	1	3.5	19.14	-1	1.1	1.16	347	265	258	218		
CLS0939+3553	09 39 52.761	+35 53 58.85	0.81	-3.05	3.16	-9.9	16.26	2	19.0	18.34	1	11.6	2.08	731	309	–	11	0.1368	p
CLS0947+0725	09 47 45.516	+07 25 45.91	16.92	19.57	25.87	-9.9	19.92	-1	0.1	-21.62	1	3.1	-41.54	2039	3204	6941	16		p
CLS0949+6614	09 49 12.164	+66 14 59.58	–	–	–	-9.9	>20.00	–	–	>21.69	–	–	–	1248	2298	2223	812		

Table 2. Sourcelist II, continued...

J2000 Name	Position (J2000) α δ	Opt-Rad Offset $\Delta\alpha$	$\Delta\delta$	Δr	Log lhr	APM Red mag	cls	psf	APM Blue mag	cls	psf	Color mag	GB6 mJy	NVSS mJy	GB1.4 mJy	VLA mJy	z	Com
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
CLS0951+7316	09 51 12.251 +73 16 17.28	–	–	–	-9.9	>20.00	–	–	>21.19	–	–	–	252	351	–	–		p
CLS0955+6940	09 55 52.726 +69 40 45.79	-0.36	-4.39	4.40	-9.9	>20.00	–	–	19.70	2	21.9	<-0.30	3796	6436	8363	29		M82,b,g
CLS0958+3224	09 58 20.947 +32 24 02.18	0.05	-0.38	0.38	3.5	15.51	-1	-1.3	15.54	-1	1.2	0.03	706	1247	1449	692	0.5305	
CLS1006+1422	10 06 51.871 +14 22 24.73	-0.69	3.67	3.73	-9.9	12.05	-1	-0.6	13.26	1	5.9	1.21	236	164	750	35	0.0294	b,t
CLS1006+1713	10 06 31.765 +17 13 17.10	0.55	-0.20	0.59	3.3	>20.00	–	–	21.15	2	4.7	< 1.15	345	577	497	247		
CLS1010+4132	10 10 27.524 +41 32 38.95	-0.13	-0.25	0.28	3.6	15.97	-1	-1.4	16.21	-1	0.9	0.24	854	498	1698	616	0.6123	
CLS1035+5652	10 35 06.022 +56 52 57.95	0.39	0.13	0.41	3.5	19.05	-1	0.3	19.83	-1	-0.1	0.78	205	332	273	129	0.5770	
CLS1036+0006	10 36 05.768 +00 06 06.79	0.30	-0.19	0.36	3.6	11.91	1	23.3	14.94	2	31.4	3.03	251	427	563	34	0.0966	b,t
CLS1036+2203	10 36 32.981 +22 03 12.25	-0.15	0.11	0.19	3.8	18.24	-1	-0.6	19.16	-1	-0.2	0.92	322	260	365	364		
CLS1058+1951	10 58 17.902 +19 51 50.90	0.03	-0.32	0.32	3.8	17.81	-1	-0.6	18.59	-1	1.8	0.78	1505	2434	2310	835	1.1100	
CLS1102+2241	11 02 03.143 +22 41 56.11	-0.67	-0.87	1.10	2.0	>20.00	–	–	21.56	-1	0.6	< 1.56	235	243	351	253		
CLS1108+0202	11 08 45.488 +02 02 40.90	-0.25	-0.10	0.27	3.7	15.57	1	27.3	18.50	1	12.3	2.93	584	750	928	380		c
CLS1109+3744	11 09 28.855 +37 44 31.09	–	–	–	-9.9	>20.00	–	–	>21.60	–	–	–	738	1225	–	592		
CLS1120+1335	11 20 17.025 +13 35 20.02	-10.50	-1.10	10.56	-9.9	19.56	2	7.7	>21.94	–	–	> 2.38	229	291	402	27		b,p
CLS1126+0625	11 26 53.144 +06 25 56.93	-0.20	-0.14	0.24	3.7	18.69	-1	-1.0	19.28	-1	0.0	0.59	427	486	468	225		
CLS1127+0555	11 27 36.525 +05 55 32.05	-0.15	-0.38	0.41	3.5	17.13	-1	2.0	18.36	-1	-0.8	1.23	306	162	143	217		
CLS1128+5833	11 28 33.622 +58 33 46.64	-23.30	-0.24	23.30	-9.9	10.44	-1	1.1	12.25	-1	0.5	1.81	392	677	977	87	0.0104	b,p
CLS1129+0951	11 29 14.095 +09 51 58.98	0.13	0.01	0.13	3.8	16.95	-1	0.0	17.68	-1	0.8	0.73	367	563	552	206	1.5150	
CLS1130+1015	11 30 19.235 +10 15 26.76	–	–	–	-9.9	>20.00	–	–	>21.94	–	–	–	237	409	386	160		
CLS1138+2524	11 38 02.389 +25 24 25.13	-0.13	0.19	0.23	3.7	19.05	-1	-0.7	19.32	-1	0.4	0.27	211	267	302	191		
CLS1142+1547	11 42 07.736 +15 47 54.20	-0.31	-0.06	0.32	3.7	19.13	-1	-0.7	20.30	1	2.5	1.17	263	333	439	274		
CLS1157+0641	11 57 00.653 +06 41 12.61	–	–	–	-9.9	>20.00	–	–	>21.94	–	–	–	205	174	157	113		
CLS1158+2621	11 58 20.142 +26 21 12.01	-5.95	0.39	5.96	-9.9	13.11	2	29.5	15.27	2	37.4	2.16	209	36	1098	5	0.1120	a,t
CLS1203+0414	12 03 21.930 +04 14 19.06	-0.49	-0.39	0.63	3.3	18.83	-1	0.1	19.98	-1	0.8	1.15	712	1146	1191	455		
CLS1213+1307	12 13 32.140 +13 07 20.37	-0.42	-0.67	0.79	2.9	17.54	-1	0.7	18.13	-1	-0.3	0.59	894	1344	1486	504	1.1410	
CLS1219+0549	12 19 18.613 +05 49 26.34	56.14	5.26	56.39	-9.9	10.91	1	11.3	12.42	1	6.5	1.51	4044	5766	–	245	0.0074	u
CLS1219+0549	12 19 31.342 +05 49 35.32	-80.63	-3.72	80.72	-9.9	10.91	1	11.3	12.42	1	6.5	1.51	3486	4833	–	122	0.0074	u
CLS1229+1601	12 29 33.479 +16 01 57.43	0.02	-0.52	0.52	3.5	18.34	-1	0.8	19.25	-1	0.3	0.91	242	393	466	143		
CLS1237+2034	12 37 56.631 +20 34 18.57	2.76	-2.06	3.44	-9.9	19.62	0	-3.6	>22.11	–	–	> 2.49	241	121	–	–		
CLS1239+0730	12 39 24.588 +07 30 17.22	0.27	0.13	0.30	3.7	17.84	-1	-0.4	19.14	-1	0.0	1.30	606	567	435	866	0.4000	
CLS1243+7315	12 43 11.217 +73 15 59.24	-0.89	0.16	0.90	2.6	10.68	2	39.0	13.92	1	32.8	3.24	312	490	518	153	0.0750	p
CLS1250+0216	12 50 30.214 +02 16 14.85	–	–	–	-9.9	>20.00	–	–	>21.85	–	–	–	327	340	280	504		
CLS1254+0859	12 54 58.957 +08 59 47.54	–	–	–	-9.9	>20.00	–	–	>21.89	–	–	–	395	672	638	312		
CLS1308+3546	13 08 23.709 +35 46 37.16	-0.11	0.30	0.32	3.7	>20.00	–	–	21.52	-1	-1.0	< 1.52	461	239	220	527	1.0550	
CLS1313+6939	13 13 38.639 +69 39 09.56	–	–	–	-9.9	>20.00	–	–	>21.90	–	–	–	293	525	1026	–		p
CLS1315+0840	13 15 9.8017 +08 40 51.60	0.70	1.80	1.93	-1.7	16.30	1	17.4	18.71	1	9.3	2.41	286	33	854	–		p
CLS1318+0430	13 18 29.644 +04 30 09.99	-2.91	-2.60	3.90	-9.9	>20.00	–	–	21.48	2	8.6	< 1.48	222	109	127	130		a?
CLS1320+0140	13 20 26.793 +01 40 36.79	0.11	-0.11	0.16	3.9	>20.00	–	–	20.76	-1	1.5	< 0.76	541	670	550	475		
CLS1323+3133	13 23 41.983 +31 33 39.58	15.29	18.52	24.02	-9.9	7.80	-1	1.1	10.77	1	10.3	2.97	241	181	2637	13	0.0159	b,u
CLS1323+3134	13 23 46.337 +31 34 04.12	-5.66	-6.48	8.60	-9.9	>20.00	–	–	22.04	1	3.7	< 2.04	274	184	2637	13		b,u
CLS1327+1223	13 27 54.682 +12 23 09.17	-0.88	0.16	0.89	2.7	19.39	1	4.0	21.09	1	2.3	1.70	305	447	732	488		
CLS1332+0200	13 32 53.270 +02 00 45.69	-0.27	0.51	0.58	3.2	17.03	1	6.8	17.78	1	6.6	0.75	1369	2187	3109	485	0.2160	s
CLS1333+0652	13 33 04.997 +06 52 31.95	-0.71	-0.16	0.73	3.0	19.32	-1	-1.4	20.27	-1	1.3	0.95	288	191	197	151		
CLS1333+2725	13 33 07.491 +27 25 18.41	-0.08	0.11	0.14	3.8	18.69	-1	1.5	20.19	-1	0.2	1.50	318	217	226	399		
CLS1342+0504	13 42 43.620 +05 04 32.12	-0.29	0.35	0.45	3.5	15.56	2	14.2	18.09	1	6.2	2.53	1090	1601	1675	386		

Table 2. Sourcelist II, continued...

J2000	Position (J2000)		Opt-Rad Offset			Log	APM Red			APM Blue			Color	GB6	NVSS	GB1.4	VLA	z	Com
Name	α	δ	$\Delta\alpha$	$\Delta\delta$	Δr	lhr	mag	cls	psf	mag	cls	psf	mag	mJy	mJy	mJy	mJy		
(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
CLS1342+0910	13 42 35.927	+09 10 30.31	–	–	–	-9.9	>20.00	–	–	>21.90	–	–	–	222	392	392	105		
CLS1347+1217	13 47 33.424	+12 17 23.94	-0.88	-0.12	0.89	2.7	13.62	2	22.6	15.61	2	45.3	1.99	3112	5397	5236	–		
CLS1350+6428	13 50 46.116	+64 28 23.36	–	–	–	-9.9	>20.00	–	–	>22.11	–	–	–	657	1201	2162	385		p
CLS1351+0830	13 51 16.918	+08 30 39.89	-0.12	-0.27	0.30	3.8	17.68	-1	1.4	18.56	-1	0.6	0.88	451	346	190	415		
CLS1353+0151	13 53 51.583	+01 51 53.87	0.74	0.51	0.90	2.5	>20.00	–	–	19.64	-1	-0.7	<-0.36	227	351	389	206	1.6060	
CLS1357+4353	13 57 40.587	+43 53 59.78	1.68	-1.25	2.09	-2.8	19.66	1	2.2	>21.98	–	–	> 2.32	430	688	710	373		
CLS1358+4737	13 58 40.666	+47 37 58.31	0.29	0.24	0.38	3.7	18.03	1	3.6	20.71	1	2.8	2.68	492	693	594	318		
CLS1402+0342	14 02 24.841	+03 42 26.58	–	–	–	-9.9	>20.00	–	–	>21.99	–	–	–	295	515	–	70		
CLS1403+0609	14 03 14.195	+06 09 26.70	–	–	–	-9.9	>20.00	–	–	>21.99	–	–	–	227	300	380	111		
CLS1404-0013	14 04 12.124	-00 13 25.13	0.08	-0.26	0.27	3.6	18.28	-1	1.2	18.98	-1	1.6	0.70	530	483	–	436		
CLS1409+1732	14 09 57.298	+17 32 43.91	1.68	-0.91	1.91	-1.8	5.89	-1	1.3	8.15	-1	0.8	2.26	328	403	1424	42	0.0162	b,p
CLS1411+0036	14 11 07.834	+00 36 07.20	-0.16	-0.01	0.16	3.6	17.29	-1	0.0	17.72	-1	0.9	0.43	205	242	–	146		
CLS1416+1048	14 16 53.505	+10 48 40.05	9.08	-6.75	11.31	-9.9	11.06	1	3.3	12.73	-1	1.2	1.67	1198	1467	4215	–	0.0237	b,p
CLS1419+0603	14 19 09.262	+06 03 28.51	-0.09	-0.23	0.25	3.7	>20.00	–	–	20.40	1	2.5	< 0.40	240	374	237	134		
CLS1424+2256	14 24 38.093	+22 56 00.59	-0.56	1.34	1.45	0.5	15.54	2	9.2	17.59	-1	1.7	2.05	548	268	220	152	3.6200	
CLS1435+1729	14 35 56.610	+17 29 34.70	-0.20	-0.18	0.27	3.6	17.10	-1	-0.9	17.64	-1	0.2	0.54	529	950	910	427	1.2030	
CLS1440+0531	14 40 32.030	+05 31 22.46	-0.34	0.02	0.34	3.6	19.06	-1	0.8	19.87	-1	0.7	0.81	253	215	–	194		
CLS1440+3820	14 40 22.336	+38 20 13.62	–	–	–	-9.9	>20.00	–	–	>21.80	–	–	–	886	1059	1025	684	1.7750	
CLS1443+2501	14 43 56.945	+25 01 44.34	1.06	-0.13	1.07	1.9	18.62	-1	-0.1	19.43	-1	1.6	0.81	334	361	456	–	0.0620	
CLS1446+2131	14 46 51.214	+21 31 51.41	1.47	3.23	3.55	-9.9	15.34	1	6.5	16.58	1	6.7	1.24	295	530	548	141	1.4000	a
CLS1454+1623	14 54 19.462	+16 23 30.64	-1.89	-1.76	2.58	-6.4	>20.00	–	–	21.61	1	3.6	< 1.61	397	13	1604	191		b,r
CLS1454+2955	14 54 32.300	+29 55 58.10	-0.10	0.33	0.34	3.6	19.11	-1	-0.5	19.08	-1	-1.3	-0.03	406	730	822	217	0.5800	
CLS1455+1151	14 55 55.269	+11 51 41.46	-0.38	1.14	1.20	1.5	10.01	1	13.6	11.98	1	12.3	1.97	228	289	–	36	0.0322	b,p
CLS1457+2832	14 57 56.105	+28 32 11.99	-5.74	6.61	8.75	-9.9	15.93	1	14.7	18.49	1	21.1	2.56	259	51	836	–	0.1411	p
CLS1504+6856	15 04 12.773	+68 56 12.83	0.40	-0.36	0.54	3.3	16.43	-1	0.1	17.31	-1	0.2	0.88	227	132	–	76	0.3180	t
CLS1509+1557	15 09 50.555	+15 57 25.51	-0.26	-0.56	0.62	3.1	>20.00	–	–	19.00	1	9.3	<-1.00	259	386	555	185		
CLS1512+4703	15 12 14.266	+47 03 33.18	-0.44	0.36	0.57	3.1	>20.00	–	–	21.67	-1	1.5	< 1.67	390	374	705	221		q
CLS1526+0959	15 26 46.348	+09 59 10.54	-0.15	-0.11	0.19	3.6	17.98	-1	-1.0	18.60	-1	-1.4	0.62	316	464	430	140	1.3580	
CLS1534+2330	15 34 57.224	+23 30 11.61	-4.01	-1.78	4.39	-9.9	7.26	1	5.4	-9.03	1	6.0	-16.29	218	326	302	148		b
CLS1543+0452	15 43 33.926	+04 52 19.32	-5.06	-3.10	5.93	-9.9	8.87	1	10.0	10.71	2	9.4	1.84	293	279	332	243		b
CLS1544+3240	15 44 05.656	+32 40 48.31	-0.21	-0.80	0.83	2.6	16.76	-1	0.6	17.71	-1	-2.0	0.95	233	181	–	251		
CLS1557+7037	15 57 44.548	+70 37 23.13	0.85	0.72	1.11	1.7	19.51	-1	-1.3	>21.69	–	–	> 2.18	366	495	2825	–		b,u
CLS1557+7042	15 57 05.599	+70 42 46.40	170.18	-88.00	191.59	-9.9	8.18	1	6.3	9.49	1	8.4	1.31	365	177	2825	–	0.0260	b,u
CLS1557-0001	15 57 51.463	-00 01 50.24	0.26	-0.13	0.29	3.3	18.80	-1	0.7	20.21	-1	-1.4	1.41	660	1106	781	–	1.7700	
CLS1601+1357	16 01 54.532	+13 57 10.70	-0.10	-0.33	0.34	3.3	17.64	-1	-0.1	18.42	-1	-1.4	0.78	365	665	617	329	2.2370	
CLS1603+1711	16 03 32.083	+17 11 55.32	0.88	0.98	1.32	0.9	10.78	1	4.9	12.72	1	26.0	1.94	343	471	686	46	0.0339	b,p
CLS1605+3001	16 05 33.048	+30 01 29.70	-0.03	0.21	0.21	3.5	19.47	-1	-1.3	20.45	1	2.5	0.98	238	184	227	251		
CLS1606+3124	16 06 08.520	+31 24 46.45	–	–	–	-9.9	>20.00	–	–	>21.69	–	–	–	453	663	809	471		
CLS1607+1551	16 07 06.430	+15 51 34.50	0.31	0.14	0.34	3.3	17.11	1	3.2	18.56	-1	-1.0	1.45	515	632	603	286	0.3570	
CLS1634+3203	16 34 12.791	+32 03 35.44	0.19	0.22	0.29	3.4	16.74	-1	2.5	17.48	-1	2.2	0.74	248	180	178	153		
CLS1635+5955	16 35 37.650	+59 55 15.07	0.10	-0.05	0.11	3.5	17.26	1	2.4	18.65	-1	1.3	1.39	232	160	234	127		p
CLS1640+1144	16 40 58.892	+11 44 04.23	0.04	0.14	0.15	3.4	13.17	2	31.5	15.88	2	29.0	2.71	259	335	296	179		
CLS1640+1220	16 40 47.938	+12 20 02.11	–	–	–	-9.9	>20.00	–	–	>21.90	–	–	–	1207	2070	2066	728		
CLS1644+0518	16 44 56.082	+05 18 37.05	3.63	-1.93	4.11	-9.9	18.30	-1	1.1	20.83	-1	0.9	2.53	363	539	659	172		p
CLS1644+2347	16 44 29.499	+23 47 59.81	0.08	-0.17	0.19	3.4	3.78	-1	-4.1	7.71	0	-7.2	3.93	339	297	314	–		

Table 2. Sourcelist II, continued...

J2000	Position (J2000)		Opt-Rad Offset			Log	APM Red			APM Blue			Color	GB6	NVSS	GB1.4	VLA	z	Com
Name	α	δ	$\Delta\alpha$	$\Delta\delta$	Δr	lhr	mag	cls	psf	mag	cls	psf	mag	mJy	mJy	mJy	mJy		
(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
CLS1645+1113	16 45 54.674	+11 13 52.63	–	–	–	-9.9	>20.00	–	–	>21.25	–	–	–	295	457	310	200		
CLS1715+2145	17 15 21.253	+21 45 31.71	–	–	–	-9.9	>20.00	–	–	>22.03	–	–	–	306	539	580	173	4.0110	
CLS1723+3417	17 23 20.797	+34 17 57.98	0.01	-0.58	0.58	2.9	15.12	2	4.4	15.62	-1	0.9	0.50	493	552	1567	215	0.2060	t
CLS1726+3957	17 26 32.661	+39 57 02.24	-0.20	0.07	0.21	3.3	17.33	-1	1.4	17.86	-1	-0.7	0.53	296	516	543	199	0.6600	
CLS1744+5542	17 44 56.609	+55 42 17.15	1.19	1.05	1.59	-0.3	8.37	1	6.8	10.55	1	9.1	2.18	562	703	748	301	0.0306	b,p
CLS1754+6237	17 54 41.238	+62 37 37.45	115.93	61.75	131.35	-9.9	6.41	2	15.8	8.58	2	16.4	2.17	206	231	990	–	0.0279	b,p
CLS2116+0225	21 16 50.744	+02 25 46.26	-0.39	-0.14	0.41	3.1	18.96	1	5.0	>21.83	–	–	> 2.87	224	136	132	111		
CLS2146+0427	21 46 55.191	+04 27 25.47	-3.06	5.61	6.39	-9.9	19.42	-1	0.8	-20.69	2	7.9	-40.11	223	93	–	117		p
CLS2204+0440	22 04 17.652	+04 40 02.01	1.56	-1.81	2.39	-5.0	10.47	2	6.8	11.79	2	4.4	1.32	653	778	784	319	0.0270	b,p
CLS2249+1136	22 49 54.591	+11 36 30.83	-0.38	1.77	1.81	-1.3	11.23	1	26.7	12.20	1	3.0	0.97	994	1697	1885	123	0.0262	b,p
CLS2250+1419	22 50 25.343	+14 19 52.03	-0.38	-0.39	0.54	3.2	16.59	1	5.1	17.69	-1	-0.6	1.10	1240	1969	2127	810	0.2370	
CLS2254+1341	22 54 21.017	+13 41 48.65	-0.53	0.42	0.68	3.0	19.37	-1	1.1	20.14	-1	1.0	0.77	877	1423	1439	463	0.6730	
CLS2300+1655	23 00 42.993	+16 55 14.40	–	–	–	-9.9	>20.00	–	–	>22.17	–	–	–	439	304	394	487		q
CLS2310+1055	23 10 28.517	+10 55 30.68	0.01	-0.24	0.24	3.6	18.55	-1	0.6	19.43	2	8.6	0.88	504	286	759	335		q
CLS2327+2535	23 27 12.329	+25 35 38.82	–	–	–	-9.9	>20.00	–	–	>21.41	–	–	–	212	338	423	116		s
CLS2329+1117	23 29 41.089	+11 17 28.60	-0.68	2.53	2.62	-6.6	15.87	1	17.7	18.47	2	12.2	2.60	281	512	480	–		
CLS2330+1228	23 30 09.952	+12 28 28.59	–	–	–	-9.9	>20.00	–	–	>21.65	–	–	–	254	426	423	72		
CLS2338+2701	23 38 29.385	+27 01 53.25	-1.67	-4.95	5.22	-9.9	10.54	1	9.1	-12.31	1	14.0	-22.85	1564	1140	7460	189		b,r

Table 3. Sourcelist III

J2000 Name	Position (J2000) α	δ	Opt-Rad Offset $\Delta\alpha$	$\Delta\delta$	Δr	Log lhr	APM Red mag	cls	psf	APM Blue mag	cls	psf	Color mag	GB6 mJy	NVSS mJy	GB1.4 mJy	VLA mJy	z	Com
(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
JVS0003+1837	00 03 01.161	+18 37 59.04	-0.05	0.06	0.08	3.7	17.96	-1	2.8	19.24	-1	2.5	1.28	233	205	123	387		
JVS0004+2637	00 04 23.775	+26 37 52.47	–	–	–	-9.9	>20.00	–	–	>21.82	–	–	–	143	406	399	68		
JVS0004+2019	00 04 35.757	+20 19 42.25	0.50	-0.16	0.52	3.3	>20.00	–	–	22.06	1	2.2	< 2.06	293	54	155	258		
JVS0006+1728	00 06 47.363	+17 28 13.79	-0.07	0.07	0.10	3.7	18.22	-1	0.2	19.22	-1	0.1	1.00	187	220	155	96	2.8900	d
JVS0006+2422	00 06 48.789	+24 22 36.48	0.01	-0.17	0.17	3.5	18.65	-1	-1.7	18.85	1	4.4	0.20	151	183	267	160		
JVS0008+1144	00 08 00.839	+11 44 00.78	–	–	–	-9.9	>20.00	–	–	>21.82	–	–	–	303	222	145	235		
JVS0010+2047	00 10 28.742	+20 47 49.71	-0.07	0.15	0.17	3.6	17.87	-1	0.5	18.44	-1	-0.4	0.57	209	158	–	161		
JVS0010+2619	00 10 36.215	+26 19 17.81	–	–	–	-9.9	>20.00	–	–	>21.67	–	–	–	159	462	415	95		
JVS0024+2439	00 24 27.332	+24 39 26.30	-0.06	-0.07	0.09	3.6	>20.00	–	–	20.93	-1	-2.2	< 0.93	189	150	140	234		
JVS0027+0929	00 27 05.795	+09 29 57.75	-0.04	0.38	0.38	3.6	17.96	-1	-0.9	18.52	-1	1.3	0.56	143	219	283	150		
JVS0036+3151	00 36 48.126	+31 51 14.53	-0.37	-0.60	0.70	2.8	16.11	1	5.8	17.20	-1	0.9	1.09	259	298	256	202		
JVS0037+1625	00 37 48.931	+16 25 17.37	0.04	0.23	0.23	3.6	17.93	-1	1.2	18.53	-1	0.0	0.60	270	188	192	66		
JVS0038+2303	00 38 08.102	+23 03 28.44	2.87	-0.89	3.00	-9.9	12.67	2	53.0	15.36	2	41.6	2.69	121	546	532	256	0.0960	a
JVS0040+0125	00 40 13.525	+01 25 46.30	-0.38	-0.10	0.39	3.6	16.83	1	17.4	19.31	1	4.8	2.48	435	229	215	44		
JVS0041+1339	00 41 17.211	+13 39 27.52	–	–	–	-9.9	>20.00	–	–	>21.79	–	–	–	989	169	174	884		
JVS0052+1633	00 52 36.165	+16 33 00.45	–	–	–	-9.9	>20.00	–	–	>21.79	–	–	–	233	82	–	119		
JVS0054+3201	00 54 17.549	+32 01 07.04	-6.36	0.36	6.37	-9.9	15.31	1	12.3	16.92	1	9.9	1.61	400	498	558	365		h
JVS0054+3006	00 54 45.890	+30 06 58.38	3.54	2.12	4.13	-9.9	18.01	2	10.1	-20.36	-1	0.3	-38.37	244	360	380	388		a
JVS0057+0805	00 57 18.767	+08 05 36.92	–	–	–	-9.9	>20.00	–	–	>21.82	–	–	–	710	301	404	1185		
JVS0106+1300	01 06 33.356	+13 00 02.61	–	–	–	-9.9	>20.00	–	–	>22.04	–	–	–	435	200	314	472		
JVS0110+0714	01 10 33.020	+07 14 42.26	-0.06	-0.38	0.38	3.7	19.29	-1	-0.8	20.28	-1	-1.4	0.99	243	99	–	322		
JVS0113+1324	01 13 54.510	+13 24 52.48	-0.35	-0.13	0.37	3.6	18.34	-1	-0.1	18.87	-1	-0.3	0.53	192	247	194	183		
JVS0114+0208	01 14 07.855	+02 08 09.40	–	–	–	-9.9	>20.00	–	–	>21.87	–	–	–	179	148	152	131		
JVS0114+2207	01 14 11.899	+22 07 08.35	-0.08	0.80	0.80	2.7	>20.00	–	–	20.73	1	6.1	< 0.73	299	469	360	319		h
JVS0117+3206	01 17 55.090	+32 06 22.70	–	–	–	-9.9	>20.00	–	–	>22.03	–	–	–	309	573	667	213		
JVS0121+1127	01 21 29.001	+11 27 00.53	-0.21	0.24	0.32	3.7	17.28	-1	0.2	18.16	-1	-0.7	0.88	203	46	–	145		
JVS0122+2954	01 22 45.428	+29 54 12.61	-0.14	0.05	0.15	3.5	17.64	-1	-1.3	18.65	-1	-0.6	1.01	377	238	167	234		
JVS0123+2418	01 23 54.208	+24 18 23.56	–	–	–	-9.9	>20.00	–	–	>22.03	–	–	–	330	496	469	381		
JVS0124+3207	01 24 47.763	+32 07 27.31	-0.07	-0.55	0.55	3.1	16.96	-1	0.9	17.27	-1	-0.4	0.31	222	255	263	165	0.6540	
JVS0127+0158	01 27 22.882	+01 58 24.53	–	–	–	-9.9	>20.00	–	–	>22.03	–	–	–	587	266	–	451		c
JVS0130+0842	01 30 27.636	+08 42 46.20	0.14	0.18	0.23	3.8	19.04	-1	-1.6	19.31	-1	-0.5	0.27	328	209	194	184		
JVS0138+2922	01 38 35.324	+29 22 04.55	0.08	-0.02	0.08	3.5	19.41	-1	0.2	19.90	-1	0.4	0.49	203	353	324	193		
JVS0139+2718	01 39 09.470	+27 18 25.22	0.27	-0.01	0.27	3.5	17.28	-1	0.9	17.47	-1	-2.4	0.19	147	218	217	108		
JVS0146+2110	01 46 58.784	+21 10 24.39	–	–	–	-9.9	>20.00	–	–	>22.03	–	–	–	462	1172	1072	232		c
JVS0148+1028	01 48 28.875	+10 28 21.33	–	–	–	-9.9	>20.00	–	–	>22.03	–	–	–	165	484	426	80	2.8450	
JVS0148+0129	01 48 33.795	+01 29 01.42	-0.07	-0.12	0.14	3.7	18.99	-1	-1.1	20.07	-1	0.3	1.08	255	87	–	171		
JVS0151+0540	01 51 01.842	+05 40 34.01	-0.72	-0.17	0.74	3.1	19.01	-1	-0.1	20.16	-1	-2.0	1.15	422	175	261	386		
JVS0152+0831	01 52 14.902	+08 31 41.82	-0.08	-0.59	0.60	3.4	>20.00	–	–	21.28	-1	-1.3	< 1.28	188	183	177	185		
JVS0157+2113	01 57 41.895	+21 13 19.02	–	–	–	-9.9	>20.00	–	–	>22.03	–	–	–	278	202	281	218		
JVS0158+1655	01 58 57.678	+16 55 47.32	–	–	–	-9.9	>20.00	–	–	>22.19	–	–	–	163	146	131	118		
JVS0200+2523	02 00 20.640	+25 23 54.69	0.17	-0.30	0.34	3.5	17.60	-1	-0.4	17.95	-1	-0.2	0.35	1604	145	142	896		
JVS0203+0235	02 03 54.812	+02 35 55.12	-0.24	0.05	0.25	3.7	17.81	-1	-1.5	18.45	-1	0.7	0.64	250	140	171	270		
JVS0204+0903	02 04 34.759	+09 03 49.25	–	–	–	-9.9	>20.00	–	–	>22.19	–	–	–	206	1814	1977	197		
JVS0211+1707	02 11 48.780	+17 07 22.73	0.37	0.09	0.38	3.5	18.57	-1	-0.4	18.69	-1	-0.3	0.12	317	539	589	273		
JVS0213+0547	02 13 36.172	+05 47 48.72	–	–	–	-9.9	>20.00	–	–	>22.19	–	–	–	302	647	512	284		

Table 3. Sourcelist III, continued...

J2000	Position (J2000)		Opt-Rad Offset			Log	APM Red			APM Blue			Color	GB6	NVSS	GB1.4	VLA	z	Com
Name	α	δ	$\Delta\alpha$	$\Delta\delta$	Δr	lhr	mag	cls	psf	mag	cls	psf	mag	mJy	mJy	mJy	mJy		
(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
JVS0214+1722	02 14 44.914	+17 22 49.51	0.07	0.06	0.09	3.7	17.74	-1	2.1	18.24	-1	-1.2	0.50	211	549	591	106	0.4720	
JVS0237+0526	02 37 14.037	+05 26 49.93	-0.07	0.13	0.15	3.9	18.58	-1	1.0	18.70	-1	1.0	0.12	294	172	173	525		
JVS0242+1742	02 42 24.269	+17 42 58.85	–	–	–	-9.9	>20.00	–	–	>21.57	–	–	–	186	187	151	115		
JVS0243+1115	02 43 17.659	+11 15 41.70	0.65	-1.86	1.97	-2.0	15.78	-1	-1.1	17.78	-1	-0.6	2.00	160	115	–	60		
JVS0248+0434	02 48 14.828	+04 34 40.85	6.49	-0.55	6.51	-9.9	10.63	2	23.8	-11.25	1	2.6	-21.88	146	69	–	92	0.0237	b
JVS0318+1628	03 18 57.803	+16 28 32.71	–	–	–	-9.9	>20.00	–	–	>21.32	–	–	–	347	8028	7674	602		
JVS0321+0629	03 21 27.669	+06 29 26.17	–	–	–	-9.9	>20.00	–	–	>21.32	–	–	–	183	98	–	92		
JVS0323+0446	03 23 14.724	+04 46 12.59	-0.30	-0.19	0.36	3.7	18.87	-1	-0.9	19.12	-1	0.7	0.25	914	147	–	689		
JVS0327+0044	03 27 59.216	+00 44 22.73	-0.11	-0.15	0.19	3.7	18.06	-1	-0.8	18.55	-1	0.6	0.49	222	195	155	192		
JVS0352+0238	03 52 46.234	+02 38 35.42	–	–	–	-9.9	>20.00	–	–	>21.32	–	–	–	214	162	212	204		
JVS0401+0413	04 01 19.914	+04 13 34.42	–	–	–	-9.9	>20.00	–	–	>21.32	–	–	–	199	106	–	131		
JVS0407+0742	04 07 29.087	+07 42 07.46	-0.04	1.01	1.01	2.2	>20.00	–	–	21.51	-1	1.4	< 1.51	185	295	195	254		
JVS0412+0010	04 12 33.458	+00 10 48.50	–	–	–	-9.9	>20.00	–	–	>21.41	–	–	–	203	261	256	140		
JVS0412+0638	04 12 45.702	+06 38 24.40	-0.07	-0.04	0.08	3.7	18.34	-1	-0.9	18.73	-1	-0.4	0.39	1054	280	300	93		
JVS0752+5808	07 52 09.679	+58 08 52.26	–	–	–	-9.9	>20.00	–	–	>22.17	–	–	–	215	164	203	175	2.9400	
JVS0754+5324	07 54 15.218	+53 24 56.45	–	–	–	-9.9	>20.00	–	–	>22.17	–	–	–	344	673	597	323		
JVS0754+7140	07 54 45.501	+71 40 56.74	-0.48	-0.43	0.64	3.0	>20.00	–	–	21.25	-1	-1.5	< 1.25	4180	406	374	2337		
JVS0756+5151	07 56 59.546	+51 51 00.24	0.36	0.42	0.55	3.1	18.10	1	2.8	19.43	-1	-0.2	1.33	168	200	–	95	1.3300	
JVS0757+6110	07 57 44.693	+61 10 32.76	0.35	-0.38	0.52	3.2	19.70	-1	-0.6	20.27	1	2.7	0.57	304	196	246	498		
JVS0802+5921	08 02 24.594	+59 21 34.79	0.19	0.14	0.24	3.6	19.57	-1	0.4	20.51	-1	-0.8	0.94	415	207	136	385	1.9770	
JVS0809+3455	08 09 38.887	+34 55 37.26	-0.97	0.64	1.16	1.6	13.34	2	11.4	15.64	2	34.3	2.30	608	282	283	639	0.0820	b,d
JVS0810+4134	08 10 58.994	+41 34 02.80	-0.18	-0.14	0.23	3.5	18.27	-1	-0.4	18.67	-1	-0.9	0.40	150	219	208	231		
JVS0814+3237	08 14 09.223	+32 37 31.95	0.26	-0.68	0.73	2.8	17.56	-1	-0.3	18.31	-1	0.6	0.75	187	250	–	108	0.8420	
JVS0814+6431	08 14 39.191	+64 31 22.04	0.24	-0.15	0.28	3.4	16.91	1	5.0	18.61	-1	0.2	1.70	203	88	–	77		
JVS0821+3107	08 21 07.613	+31 07 51.16	-0.04	-0.34	0.34	3.4	16.40	-1	0.3	16.85	-1	-1.5	0.45	466	101	–	226	2.6300	
JVS0825+2704	08 25 47.393	+27 04 22.03	0.09	-0.19	0.21	3.5	18.34	-1	0.2	18.50	-1	0.8	0.16	250	108	144	226	2.0600	
JVS0828+2920	08 28 09.385	+29 20 19.56	0.01	-1.41	1.41	0.6	18.10	1	5.2	18.78	1	4.1	0.68	246	308	226	124	2.3220	
JVS0832+1821	08 32 24.882	+18 21 22.00	0.12	0.65	0.66	2.9	19.79	-1	0.4	21.54	-1	-0.5	1.75	1609	143	–	1087		
JVS0838+2424	08 38 02.437	+24 24 04.65	–	–	–	-9.9	>20.00	–	–	>21.83	–	–	–	194	165	142	206		
JVS0839+4227	08 39 56.561	+42 27 55.83	-0.22	-0.11	0.25	3.6	19.62	-1	2.1	20.61	-1	-0.5	0.99	1126	523	475	1585	0.5950	
JVS0843+4537	08 43 07.095	+45 37 42.88	0.15	0.45	0.47	3.4	16.76	1	11.2	20.05	1	10.8	3.29	1235	268	233	1519		
JVS0843+4215	08 43 31.639	+42 15 29.51	–	–	–	-9.9	>20.00	–	–	>21.75	–	–	–	764	1409	1291	698		
JVS0851+0845	08 51 28.425	+08 45 15.32	–	–	–	-9.9	>20.00	–	–	>21.67	–	–	–	154	179	144	158		
JVS0853+6828	08 53 18.899	+68 28 19.01	-0.33	0.73	0.80	2.8	11.07	1	5.1	12.53	1	10.5	1.46	255	303	316	214	0.0390	b,
JVS0855+5751	08 55 21.356	+57 51 44.08	0.33	0.26	0.42	3.4	19.87	2	8.4	>22.02	–	–	> 2.15	131	651	–	57		
JVS0856+7146	08 56 54.870	+71 46 23.88	0.34	-0.10	0.35	3.4	18.21	-1	0.4	19.03	-1	0.5	0.82	171	62	160	78		
JVS0856+1739	08 56 56.690	+17 39 47.78	–	–	–	-9.9	>20.00	–	–	>22.03	–	–	–	248	30	–	224		
JVS0857+2805	08 57 35.901	+28 05 38.52	–	–	–	-9.9	>20.00	–	–	>22.22	–	–	–	1303	221	242	901		
JVS0905+2748	09 05 04.047	+27 48 17.68	0.74	-0.77	1.07	2.0	18.66	2	4.5	19.88	-1	-0.2	1.22	194	180	234	171	0.8600	a
JVS0905+2849	09 05 41.767	+28 49 28.26	0.14	-0.19	0.24	3.6	17.51	-1	2.0	18.15	-1	0.2	0.64	188	199	147	249		
JVS0906+4636	09 06 15.540	+46 36 19.01	0.12	0.26	0.29	3.7	15.02	1	25.4	16.90	1	17.6	1.88	447	290	263	438	0.0848	b
JVS0908+1609	09 08 55.927	+16 09 54.75	0.40	0.07	0.41	3.4	18.65	-1	1.3	20.19	-1	1.6	1.54	193	183	163	104		
JVS0912+2205	09 12 24.787	+22 05 06.23	0.67	1.12	1.31	1.1	19.36	1	3.5	20.41	1	3.0	1.05	194	144	115	103		
JVS0915+2056	09 15 08.782	+20 56 07.36	-0.04	0.13	0.14	3.7	18.06	-1	-0.9	18.82	-1	-0.8	0.76	301	315	257	260		
JVS0915+0007	09 15 51.694	+00 07 13.30	0.45	-0.33	0.56	3.1	19.46	-1	2.3	>22.01	–	–	> 2.55	200	354	356	105		

Table 3. Sourcelist III, continued...

J2000	Position (J2000)	Opt-Rad Offset			Log	APM Red			APM Blue			Color	GB6	NVSS	GB1.4	VLA	z	Com
Name	α δ	$\Delta\alpha$	$\Delta\delta$	Δr	lhr	mag	cls	psf	mag	cls	psf	mag	mJy	mJy	mJy	mJy		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
JVS0916+1838	09 16 38.029 +18 38 15.29	0.05	0.03	0.06	3.7	16.49	-1	1.0	16.90	-1	-1.4	0.41	245	190	205	234		
JVS0917+6530	09 17 55.565 +65 30 15.13	–	–	–	-9.9	>20.00	–	–	>22.17	–	–	–	600	609	609	337		
JVS0921+0805	09 21 01.066 +08 05 05.67	-0.28	0.13	0.31	3.4	18.47	-1	1.5	19.86	-1	0.2	1.39	238	100	–	190		
JVS0923+4125	09 23 31.304 +41 25 27.43	0.61	-0.60	0.86	2.6	19.57	-1	1.1	21.50	-1	-1.8	1.93	197	199	158	107	0.0280	
JVS0925+1658	09 25 49.965 +16 58 12.21	0.18	0.11	0.21	3.6	16.36	-1	-1.0	17.13	-1	-0.9	0.77	133	90	–	79		
JVS0926+2534	09 26 10.811 +25 34 33.42	0.85	-2.57	2.71	-7.3	5.65	-1	0.8	8.44	-1	-0.4	2.79	1473	325	290	1233		b
JVS0929+7304	09 29 42.158 +73 04 04.56	0.03	-0.40	0.40	3.3	19.35	-1	1.9	>21.65	–	–	> 2.30	330	146	–	481		
JVS0935+2405	09 35 23.273 +24 05 12.33	-0.21	0.05	0.22	3.6	>20.00	–	–	20.93	-1	-1.7	< 0.93	159	294	524	108		
JVS0938+0314	09 38 54.790 +03 14 31.60	–	–	–	-9.9	>20.00	–	–	>22.01	–	–	–	234	388	334	157		c
JVS0941+1145	09 41 13.558 +11 45 32.33	0.47	0.06	0.47	3.4	18.94	-1	-0.1	21.46	-1	1.3	2.52	995	206	291	1030	3.1770	
JVS0943+6150	09 43 14.504 +61 50 33.34	0.10	-0.15	0.18	3.7	18.78	-1	-0.3	19.40	-1	0.5	0.62	164	71	–	91	0.7533	
JVS0945+2729	09 45 15.625 +27 29 11.34	–	–	–	-9.9	>20.00	–	–	>22.01	–	–	–	1073	246	421	962		
JVS0946+0723	09 46 02.959 +07 23 37.51	0.70	-0.06	0.70	3.0	18.12	-1	1.9	21.63	-1	0.9	3.51	201	428	340	154		
JVS0949+1752	09 49 39.763 +17 52 49.43	0.26	0.01	0.26	3.8	16.69	-1	-0.2	17.70	-1	-0.2	1.01	318	258	340	256		
JVS0950+1343	09 50 43.549 +13 43 46.69	–	–	–	-9.9	>20.00	–	–	>22.01	–	–	–	301	279	400	275		
JVS0953+3225	09 53 27.956 +32 25 51.54	-0.06	-0.23	0.24	3.7	16.34	-1	0.4	16.87	-1	-0.9	0.53	144	141	216	140	1.5700	
JVS0955+0823	09 55 57.137 +08 23 38.37	–	–	–	-9.9	>20.00	–	–	>22.04	–	–	–	272	263	255	255		
JVS0957+3422	09 57 46.489 +34 22 15.26	0.08	1.51	1.51	0.3	19.92	2	8.2	>21.76	–	–	> 1.84	156	308	375	97		
JVS0958+5039	09 58 37.809 +50 39 57.48	-0.39	-0.37	0.54	3.2	18.74	-1	0.8	19.87	-1	0.1	1.13	157	135	–	130	1.1540	
JVS1001+2911	10 01 10.206 +29 11 37.54	-0.07	-0.06	0.09	3.9	18.22	-1	0.8	19.11	1	3.0	0.89	228	196	–	120		
JVS1006+0509	10 06 37.609 +05 09 53.95	0.94	0.63	1.13	1.8	>20.00	–	–	21.68	-1	1.3	< 1.68	312	172	207	324		
JVS1007+2251	10 07 18.073 +22 51 26.94	-0.57	-0.57	0.81	2.8	19.60	-1	1.3	20.07	-1	-0.4	0.47	824	355	638	696		
JVS1007+0708	10 07 49.817 +07 08 35.92	-0.19	-0.23	0.30	3.6	18.18	-1	0.9	18.81	-1	-1.6	0.63	177	150	–	102		
JVS1011+6529	10 11 38.185 +65 29 21.36	0.97	0.19	0.99	2.2	19.08	-1	-0.5	19.49	-1	-0.2	0.41	773	105	697	435		
JVS1012+3309	10 12 11.453 +33 09 26.41	-0.42	-0.26	0.49	3.5	17.58	-1	0.2	17.99	-1	-0.2	0.41	3073	194	145	3361	2.2600	
JVS1013+2829	10 13 02.999 +28 29 10.93	–	–	–	-9.9	>20.00	–	–	>21.76	–	–	–	375	641	612	180		
JVS1013+4918	10 13 29.933 +49 18 40.96	-0.11	0.04	0.12	3.8	18.69	-1	-0.1	19.35	-1	0.0	0.66	243	265	246	170	2.2010	
JVS1014+0408	10 14 35.250 +04 08 52.33	-0.17	-0.25	0.30	3.6	17.34	-1	0.2	18.19	-1	-1.2	0.85	319	162	152	219		
JVS1022+3041	10 22 30.299 +30 41 05.13	-0.12	0.06	0.13	3.8	16.74	-1	2.9	17.25	-1	1.5	0.51	362	940	939	473	1.3160	
JVS1026+2542	10 26 23.621 +25 42 59.42	–	–	–	-9.9	>20.00	–	–	>22.01	–	–	–	384	257	221	352		
JVS1029+0519	10 29 21.829 +05 19 38.76	–	–	–	-9.9	>20.00	–	–	>22.10	–	–	–	283	202	246	238		g
JVS1030+3102	10 30 59.093 +31 02 55.68	0.07	-0.15	0.17	3.8	15.27	1	7.0	16.03	-1	2.0	0.76	269	253	307	362	0.1782	
JVS1032+5610	10 32 02.515 +56 10 56.72	–	–	–	-9.9	>20.00	–	–	>22.19	–	–	–	178	274	232	88		
JVS1034+6832	10 34 01.112 +68 32 27.13	–	–	–	-9.9	>20.00	–	–	>21.19	–	–	–	294	174	–	162		
JVS1037+0424	10 37 39.338 +04 24 01.75	–	–	–	-9.9	>20.00	–	–	>22.10	–	–	–	276	165	201	186		
JVS1038+4244	10 38 18.189 +42 44 42.77	-0.10	0.01	0.10	3.7	17.27	1	3.7	19.15	-1	0.3	1.88	1419	167	–	1176		
JVS1041+2101	10 41 27.102 +21 01 41.50	0.09	-1.17	1.17	1.8	19.28	1	4.3	20.33	-1	-0.2	1.05	693	193	210	580		
JVS1042+2949	10 42 36.512 +29 49 45.14	–	–	–	-9.9	>20.00	–	–	>22.19	–	–	–	283	841	831	226		
JVS1042+0748	10 42 57.588 +07 48 50.55	-1.71	-0.51	1.78	-0.9	18.09	1	14.0	18.51	1	8.0	0.42	250	383	302	163		
JVS1048+2115	10 48 31.295 +21 15 52.26	-0.20	-0.31	0.37	3.6	17.02	-1	-0.4	17.30	-1	-0.4	0.28	989	163	176	830		
JVS1051+2027	10 51 01.375 +20 27 20.00	-0.47	-0.47	0.66	3.1	19.00	-1	-1.2	19.67	-1	-0.8	0.67	621	105	–	314		
JVS1053+1842	10 53 26.044 +18 42 03.31	0.17	-0.30	0.34	3.7	19.44	-1	0.8	20.71	-1	-0.5	1.27	2608	88	–	1741		
JVS1100+1629	11 00 21.032 +16 29 14.65	-0.07	-0.02	0.07	3.9	18.80	-1	-0.8	19.51	-1	1.8	0.71	444	257	268	259		
JVS1101+2414	11 01 23.513 +24 14 29.52	–	–	–	-9.9	>20.00	–	–	>21.89	–	–	–	435	457	416	372		
JVS1101+0215	11 01 37.432 +02 15 12.23	0.49	-0.78	0.92	2.4	19.82	-1	-1.0	20.71	-1	-0.3	0.89	370	157	–	207		

Table 3. Sourcelist III, continued...

J2000 Name	Position (J2000) α δ	Opt-Rad Offset $\Delta\alpha$	$\Delta\delta$	Δr	Log lhr	APM Red mag	cls	psf	APM Blue mag	cls	psf	Color mag	GB6 mJy	NVSS mJy	GB1.4 mJy	VLA mJy	z	Com
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
JVS1104+0730	11 04 24.070 +07 30 53.17	0.32	0.38	0.50	3.3	17.35	-1	2.5	18.31	-1	1.1	0.96	190	78	114	318		
JVS1104+6038	11 04 53.695 +60 38 55.28	0.21	-0.26	0.33	3.6	18.11	-1	-0.4	19.00	-1	0.4	0.89	1935	150	151	5340	1.3630	
JVS1106+1713	11 06 26.125 +17 13 21.59	-0.30	2.02	2.04	-2.4	19.22	2	5.8	-20.56	-1	0.8	-39.78	1061	201	175	908		
JVS1108+0811	11 08 37.497 +08 11 01.56	-0.61	-1.09	1.25	1.5	>20.00	–	–	21.63	-1	-0.0	< 1.63	446	115	149	390		
JVS1109+1444	11 09 14.044 +14 44 52.94	-0.43	-0.84	0.94	2.4	19.22	-1	-1.1	19.82	-1	-0.4	0.60	176	64	–	234		
JVS1109+0658	11 09 51.253 +06 58 56.30	–	–	–	-9.9	>20.00	–	–	>21.89	–	–	–	1473	402	410	1398		
JVS1110+4817	11 10 36.325 +48 17 52.44	0.24	-0.02	0.24	3.6	19.24	1	2.6	>21.56	–	–	> 2.32	153	512	489	72	0.7400	
JVS1111+3252	11 11 31.768 +32 52 55.74	-0.73	-0.50	0.88	2.5	19.45	-1	0.9	20.54	-1	-0.7	1.09	214	253	214	150		
JVS1112+0724	11 12 09.557 +07 24 49.10	8.57	-4.90	9.87	-9.9	10.86	2	7.3	11.74	1	6.6	0.88	327	93	–	235		a
JVS1114+2632	11 14 27.096 +26 32 58.82	-0.19	-0.31	0.36	3.6	>20.00	–	–	22.04	1	3.5	< 2.04	220	232	280	120		
JVS1118+2922	11 18 57.919 +29 22 13.74	1.27	0.31	1.31	1.3	19.60	-1	-1.1	20.04	-1	-2.5	0.44	160	129	–	138		
JVS1119+6004	11 19 14.344 +60 04 57.18	0.23	0.00	0.23	3.7	16.67	-1	-1.1	17.18	-1	-0.9	0.51	620	262	265	614	2.6380	
JVS1120+1104	11 20 21.374 +11 04 34.77	-0.15	0.33	0.36	3.6	17.04	-1	0.5	17.55	-1	-0.8	0.51	220	107	129	98		
JVS1120+5404	11 20 23.228 +54 04 27.09	0.24	0.31	0.39	3.5	18.37	-1	-1.5	18.65	-1	1.5	0.28	236	269	240	195	0.9240	
JVS1120+1420	11 20 27.805 +14 20 54.99	-0.55	-0.91	1.06	2.1	19.39	-1	2.0	>21.88	–	–	> 2.49	248	2447	2592	154	0.3620	
JVS1120+0704	11 20 38.444 +07 04 47.16	0.57	0.72	0.92	2.5	19.95	2	11.2	>21.91	–	–	> 1.96	499	241	223	369		i
JVS1124+3214	11 24 03.010 +32 14 14.06	–	–	–	-9.9	>20.00	–	–	>22.09	–	–	–	209	150	129	241		
JVS1124+6555	11 24 24.666 +65 55 01.36	–	–	–	-9.9	>20.00	–	–	>22.09	–	–	–	213	264	253	244		
JVS1124+2307	11 24 31.591 +23 07 55.98	-0.01	0.53	0.53	3.4	19.29	-1	0.6	21.61	-1	0.5	2.32	648	143	–	466		
JVS1128+2251	11 28 14.748 +22 51 48.95	-0.10	-0.24	0.26	3.7	18.94	-1	0.2	19.85	-1	1.7	0.91	412	182	191	296		
JVS1133+0015	11 33 03.029 +00 15 48.98	-0.46	-0.15	0.48	3.4	18.38	-1	-0.8	18.94	-1	0.2	0.56	321	233	346	332	1.1730	
JVS1134+2901	11 34 14.327 +29 01 21.19	–	–	–	-9.9	>20.00	–	–	>22.09	–	–	–	473	121	113	414		c
JVS1136+3407	11 36 27.344 +34 07 39.50	-0.26	-0.33	0.42	3.6	19.22	-1	-0.4	19.95	-1	1.8	0.73	264	136	139	232		
JVS1146+0458	11 46 31.743 +04 58 19.30	-0.62	-0.46	0.77	2.9	19.51	-1	0.4	20.70	-1	1.6	1.19	274	185	195	209		
JVS1150+4332	11 50 16.602 +43 32 05.90	0.73	0.09	0.74	2.9	19.34	-1	-1.7	20.33	1	4.0	0.99	597	187	192	1163	3.0370	
JVS1150+0630	11 50 32.731 +06 30 29.43	-0.09	-0.01	0.09	3.8	18.44	-1	-1.3	18.58	-1	1.6	0.14	921	159	136	474		
JVS1152+3307	11 52 51.911 +33 07 18.79	0.27	0.19	0.33	3.7	16.63	-1	-1.4	17.19	-1	-1.4	0.56	327	206	337	127		
JVS1153+0914	11 53 12.551 +09 14 02.31	0.11	-0.21	0.24	3.8	17.81	-1	0.2	18.26	-1	1.6	0.45	2993	809	737	1563	0.6980	
JVS1153+4931	11 53 24.465 +49 31 08.83	0.04	0.16	0.16	3.7	16.25	1	3.1	16.69	-1	0.4	0.44	771	1572	1427	586	0.3340	
JVS1153+4036	11 53 54.660 +40 36 52.62	0.23	1.01	1.04	2.2	19.67	-1	-0.5	21.20	-1	1.3	1.53	156	1135	698	99	0.9160	
JVS1154+5934	11 54 01.369 +59 34 54.17	0.39	-0.12	0.41	3.5	19.65	-1	-0.7	20.32	-1	-0.8	0.67	1543	101	–	1155	0.8710	
JVS1155+4555	11 55 11.008 +45 55 39.62	–	–	–	-9.9	>20.00	–	–	>21.73	–	–	–	394	613	632	351		
JVS1156+7306	11 56 27.257 +73 06 50.15	0.19	0.10	0.21	3.7	18.96	-1	-1.0	19.13	-1	1.7	0.17	173	299	251	112		
JVS1156+0932	11 56 54.475 +09 32 41.39	-0.33	-0.24	0.41	3.6	17.67	1	12.3	21.02	1	3.5	3.35	280	473	504	147		
JVS1157+1231	11 57 17.454 +12 31 13.41	2.26	-0.89	2.43	-5.1	18.90	-1	1.6	20.18	1	3.4	1.28	186	153	204	248		
JVS1159+0220	11 59 35.253 +02 20 10.60	–	–	–	-9.9	>20.00	–	–	>21.73	–	–	–	358	184	215	458		
JVS1200+2008	12 00 57.115 +20 08 44.62	–	–	–	-9.9	>20.00	–	–	>21.73	–	–	–	299	141	158	150		
JVS1203+0634	12 03 01.013 +06 34 41.55	0.19	-0.58	0.61	3.3	19.47	-1	0.6	20.71	-1	1.0	1.24	517	355	285	689		
JVS1203+6031	12 03 03.509 +60 31 19.13	4.02	3.06	5.05	-9.9	12.82	1	7.4	14.32	2	18.3	1.50	207	190	98	119	0.0656	a
JVS1203+4632	12 03 31.799 +46 32 55.56	–	–	–	-9.9	>20.00	–	–	>21.73	–	–	–	482	417	401	259		
JVS1204+0407	12 04 52.580 +04 07 20.96	–	–	–	-9.9	>20.00	–	–	>21.73	–	–	–	170	133	139	150		
JVS1205+0527	12 05 18.707 +05 27 48.55	0.06	0.00	0.06	3.9	18.27	-1	0.3	18.93	-1	0.5	0.66	444	178	185	283		
JVS1205+0053	12 05 48.493 +00 53 43.88	-0.23	-0.13	0.26	3.6	17.83	-1	0.2	18.40	-1	0.7	0.57	255	118	144	247	0.1040	
JVS1206+3941	12 06 37.053 +39 41 03.74	0.16	-0.04	0.16	3.8	17.60	-1	-0.5	18.02	-1	-0.4	0.42	640	258	258	406	1.5134	
JVS1209+1810	12 09 51.761 +18 10 06.79	0.12	0.45	0.47	3.6	18.68	-1	-0.4	19.29	-1	-0.8	0.61	174	72	–	238		

Table 3. Sourcelist III, continued...

J2000	Position (J2000)		Opt-Rad Offset			Log	APM Red			APM Blue			Color	GB6	NVSS	GB1.4	VLA	z	Com
Name	α	δ	$\Delta\alpha$	$\Delta\delta$	Δr	lhr	mag	cls	psf	mag	cls	psf	mag	mJy	mJy	mJy	mJy		
(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
JVS1210+6422	12 10 31.638	+64 22 17.45	–	–	–	-9.9	>20.00	–	–	>22.05	–	–	–	264	54	–	229		
JVS1214+3309	12 14 04.114	+33 09 45.56	0.12	-0.11	0.16	4.0	17.48	-1	1.9	18.19	-1	0.0	0.71	182	1403	1196	168	1.5980	
JVS1215+1730	12 15 14.722	+17 30 02.25	–	–	–	-9.9	>20.00	–	–	>22.05	–	–	–	230	1010	836	169		
JVS1215+3151	12 15 48.965	+31 51 34.56	-1.40	0.61	1.53	0.4	19.38	1	4.8	19.99	-1	-0.9	0.61	257	220	197	94		
JVS1218+1105	12 18 26.093	+11 05 05.27	0.16	-0.22	0.27	3.7	16.44	-1	0.6	17.00	-1	-0.3	0.56	155	220	214	258	1.3980	
JVS1218+0102	12 18 27.779	+01 02 37.34	0.08	0.12	0.14	3.7	16.17	1	5.9	18.62	1	7.5	2.45	233	88	230	204	0.1180	
JVS1218+2449	12 18 40.042	+24 49 55.05	–	–	–	-9.9	>20.00	–	–	>21.74	–	–	–	182	239	222	97		
JVS1219+6344	12 19 10.588	+63 44 10.71	–	–	–	-9.9	>20.00	–	–	>22.05	–	–	–	865	62	–	968		
JVS1220+0203	12 20 11.885	+02 03 42.22	-0.55	-0.39	0.67	3.1	15.95	-1	0.2	16.35	-1	-0.9	0.40	203	673	652	149	0.2400	
JVS1227+3635	12 27 58.725	+36 35 11.82	–	–	–	-9.9	>20.00	–	–	>21.77	–	–	–	711	2098	2138	576	1.9730	
JVS1229+2711	12 29 34.247	+27 11 56.38	-0.63	-0.49	0.80	2.8	19.22	1	4.2	>22.24	–	–	> 3.02	879	160	184	288		
JVS1233+5026	12 33 49.267	+50 26 22.77	0.08	-0.21	0.22	3.7	16.63	1	11.3	18.55	1	4.8	1.92	242	283	310	148	0.2075	
JVS1237+3314	12 37 04.079	+33 14 22.21	0.60	-1.27	1.40	0.9	17.96	-1	-0.7	18.62	-1	-0.4	0.66	197	218	284	285	1.2800	
JVS1237+2234	12 37 57.953	+22 34 30.13	0.24	-0.13	0.27	3.8	17.86	-1	0.2	18.47	-1	-1.1	0.61	964	183	413	1162		
JVS1240+6958	12 40 34.697	+69 58 30.63	1.08	-0.87	1.39	0.9	16.70	2	12.6	17.47	-1	2.5	0.77	285	132	131	138	1.4706	a
JVS1241+6020	12 41 29.591	+60 20 41.32	3.01	1.38	3.31	-9.9	15.30	-1	2.9	16.36	1	3.2	1.06	188	424	408	198	1.4570	h,i
JVS1244+4048	12 44 49.189	+40 48 06.14	0.33	-0.05	0.33	3.7	19.07	-1	-0.5	20.52	-1	1.1	1.45	231	1342	1623	187	0.8130	
JVS1247+7124	12 47 09.326	+71 24 20.03	–	–	–	-9.9	>20.00	–	–	>22.24	–	–	–	268	117	–	258		
JVS1247+6723	12 47 33.331	+67 23 16.44	0.06	0.53	0.53	3.3	15.16	1	18.4	17.61	1	20.6	2.45	186	263	344	113	0.1073	
JVS1247+2551	12 47 44.541	+25 51 55.36	–	–	–	-9.9	>20.00	–	–	>22.11	–	–	–	180	234	296	123		
JVS1248+2022	12 48 37.268	+20 22 26.31	0.14	-0.29	0.32	3.7	18.31	-1	0.8	18.46	-1	0.5	0.15	189	139	234	144		
JVS1248+4839	12 48 50.950	+48 39 53.15	-0.09	-0.01	0.09	3.8	>20.00	–	–	21.02	-1	-1.2	< 1.02	218	106	213	202		
JVS1254+4536	12 54 28.831	+45 36 04.32	-0.16	-0.05	0.17	3.7	17.91	-1	1.1	18.60	-1	0.3	0.69	424	194	172	423		
JVS1254+0233	12 54 45.465	+02 33 28.96	-0.74	0.30	0.80	2.8	19.22	-1	0.4	20.78	-1	-0.2	1.56	228	125	129	347		
JVS1258+5421	12 58 15.609	+54 21 52.11	–	–	–	-9.9	>20.00	–	–	>21.42	–	–	–	335	647	569	310		
JVS1300+1206	13 00 01.940	+12 06 22.12	0.36	-0.16	0.39	3.6	19.95	-1	1.8	21.15	-1	2.3	1.20	1315	264	146	853		
JVS1300+2830	13 00 28.530	+28 30 10.20	-0.39	-0.55	0.67	3.1	17.05	-1	2.7	17.78	1	3.2	0.73	690	171	181	1161	0.6480	
JVS1300+0828	13 00 36.440	+08 28 02.86	0.42	0.01	0.42	3.5	17.60	-1	0.1	18.49	-1	1.0	0.89	157	115	–	147		
JVS1302+6902	13 02 37.925	+69 02 51.61	0.72	0.23	0.76	2.9	19.61	1	2.5	21.25	-1	1.3	1.64	202	224	164	184	0.5677	
JVS1304+3523	13 04 36.066	+35 23 53.83	–	–	–	-9.9	>20.00	–	–	>21.42	–	–	–	182	493	424	273		
JVS1312+2531	13 12 14.288	+25 31 13.14	–	–	–	-9.9	>20.00	–	–	>21.42	–	–	–	375	238	228	348		
JVS1313+5458	13 13 37.853	+54 58 23.90	–	–	–	-9.9	>20.00	–	–	>21.42	–	–	–	194	1304	1173	134	0.6130	c
JVS1316+6726	13 16 27.200	+67 26 24.26	0.17	0.71	0.73	2.9	19.80	-1	-1.4	21.38	-1	0.3	1.58	169	103	164	213		
JVS1317+4115	13 17 39.188	+41 15 45.65	-0.09	0.03	0.09	3.8	9.76	1	21.6	12.86	2	42.3	3.10	994	266	447	850		b
JVS1319+6217	13 19 07.484	+62 17 21.34	0.49	0.51	0.71	3.0	18.20	-1	-0.3	19.68	-1	1.1	1.48	1866	202	–	1021		
JVS1322+2148	13 22 11.402	+21 48 12.27	0.18	0.18	0.25	3.7	18.59	-1	-0.6	18.99	-1	1.2	0.40	161	241	220	123		
JVS1326+5712	13 26 50.572	+57 12 06.73	0.88	-0.17	0.90	2.6	19.80	1	4.0	>21.99	–	–	> 2.19	209	519	499	151		
JVS1329+5009	13 29 05.800	+50 09 26.41	-0.03	-0.02	0.04	3.9	>20.00	–	–	21.53	1	2.2	< 1.53	266	246	301	274	2.6540	
JVS1330+5202	13 30 42.599	+52 02 15.45	–	–	–	-9.9	>20.00	–	–	>22.01	–	–	–	480	83	–	358		c
JVS1331+3030	13 31 08.287	+30 30 32.96	-0.14	-0.15	0.21	3.7	16.73	-1	-0.1	17.12	-1	0.0	0.39	288	14902	13467	233	0.8490	
JVS1341+2816	13 41 15.285	+28 16 05.11	-0.33	1.02	1.07	2.1	19.55	-1	0.6	21.70	-1	-0.3	2.15	1155	123	–	1629	1.3100	
JVS1342+1242	13 42 04.638	+12 42 49.97	–	–	–	-9.9	>20.00	–	–	>22.21	–	–	–	619	75	–	608		
JVS1343+2844	13 43 00.180	+28 44 07.50	0.01	-0.03	0.03	3.8	16.06	-1	1.9	16.73	-1	0.0	0.67	150	251	261	163	0.9050	
JVS1344+3355	13 44 37.100	+33 55 46.19	0.15	-0.19	0.24	3.7	18.67	-1	-0.6	19.01	-1	-1.6	0.34	751	269	262	657		
JVS1350+6132	13 50 38.187	+61 32 48.52	–	–	–	-9.9	>20.00	–	–	>22.03	–	–	–	292	277	281	188	1.8340	

Table 3. Sourcelist III, continued...

J2000 Name	Position (J2000) α	δ	Opt-Rad Offset $\Delta\alpha$	$\Delta\delta$	Δr	Log lhr	APM Red mag	cls	psf	APM Blue mag	cls	psf	Color mag	GB6 mJy	NVSS mJy	GB1.4 mJy	VLA mJy	z	Com
(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
JVS1359+2229	13 59 52.148	+22 29 45.33	–	–	–	-9.9	>20.00	–	–	>21.90	–	–	–	160	220	182	100		
JVS0404+0013	04 04 12.124	+00 13 25.13	–	–	–	-9.9	>20.00	–	–	>21.41	–	–	–	886	220	–	845		
JVS1409+3642	14 09 09.509	+36 42 08.19	–	–	–	-9.9	>20.00	–	–	>21.75	–	–	–	707	551	436	529		c
JVS1410+6216	14 10 35.418	+62 16 47.41	–	–	–	-9.9	>20.00	–	–	>22.03	–	–	–	372	180	149	272		
JVS1411+5917	14 11 21.987	+59 17 04.30	0.02	-0.36	0.36	3.5	>20.00	–	–	21.67	-1	-0.7	< 1.67	182	324	326	121	1.7250	
JVS1411+2134	14 11 54.863	+21 34 23.42	-0.30	-1.04	1.08	1.9	>20.00	–	–	20.80	-1	1.2	< 0.80	390	208	279	553		
JVS1411+3415	14 11 55.265	+34 15 10.08	0.25	0.01	0.25	3.7	18.13	-1	-1.1	18.42	-1	0.8	0.29	297	200	–	339	1.8200	
JVS1412+3200	14 12 24.979	+32 00 54.30	–	–	–	-9.9	>20.00	–	–	>22.10	–	–	–	5740	280	307	3242		
JVS1414+4554	14 14 14.853	+45 54 48.73	1.50	-1.57	2.17	-3.3	18.60	1	4.8	>21.72	–	–	> 3.12	260	424	360	543	0.1860	
JVS1414+1922	14 14 29.503	+19 22 18.42	–	–	–	-9.9	>20.00	–	–	>22.15	–	–	–	385	82	–	279		
JVS1416+3444	14 16 04.184	+34 44 36.41	–	–	–	-9.9	>20.00	–	–	>21.75	–	–	–	717	1863	1842	497		
JVS1416+1430	14 16 37.250	+14 30 44.28	0.22	-0.63	0.67	3.0	>20.00	–	–	22.00	-1	0.4	< 2.00	458	134	–	515		
JVS1417+1950	14 17 12.941	+19 50 36.59	–	–	–	-9.9	>20.00	–	–	>22.15	–	–	–	121	173	176	74		
JVS1420+3721	14 20 00.342	+37 21 34.67	-0.69	0.60	0.91	2.5	18.44	-1	-0.8	19.15	-1	1.0	0.71	275	181	177	144	0.9690	
JVS1420+1703	14 20 20.890	+17 03 29.20	0.00	0.37	0.37	3.5	19.17	-1	1.1	19.48	-1	1.2	0.31	310	57	365	332		
JVS1424+4705	14 24 37.081	+47 05 56.70	0.13	-0.12	0.18	3.7	18.28	-1	0.6	18.89	-1	-0.9	0.61	257	226	163	206		
JVS1425+1239	14 25 18.609	+12 39 27.03	-0.20	-0.12	0.23	3.6	18.84	-1	-1.0	19.44	-1	-0.3	0.60	2342	278	220	1717		
JVS1427+1142	14 27 17.251	+11 42 52.99	–	–	–	-9.9	>20.00	–	–	>21.82	–	–	–	898	281	220	883		
JVS1428+2724	14 28 31.763	+27 24 32.24	1.80	-1.58	2.40	-4.9	5.83	1	10.8	8.10	1	9.9	2.27	168	58	–	135	0.0144	b
JVS1429+6316	14 29 05.309	+63 16 04.65	–	–	–	-9.9	>20.00	–	–	>22.01	–	–	–	519	209	682	348	1.5610	
JVS1429+2607	14 29 50.912	+26 07 50.32	0.18	0.53	0.56	3.2	17.15	1	3.1	18.34	-1	1.3	1.19	319	402	398	260		
JVS1435+3012	14 35 35.402	+30 12 24.53	–	–	–	-9.9	>20.00	–	–	>22.10	–	–	–	297	244	162	259		
JVS1438+1235	14 38 37.799	+12 35 34.24	-0.08	-0.76	0.76	2.8	17.61	-1	1.4	18.56	-1	-0.6	0.95	350	120	–	242		
JVS1439+2114	14 39 08.905	+21 14 50.81	–	–	–	-9.9	>20.00	–	–	>21.89	–	–	–	232	68	–	261		
JVS1439+1117	14 39 12.042	+11 17 40.56	-1.30	0.19	1.31	1.1	18.09	2	7.7	19.32	1	6.9	1.23	391	29	–	252		a
JVS1439+4958	14 39 46.976	+49 58 05.45	0.08	0.01	0.08	3.7	17.82	-1	-0.0	18.68	1	4.1	0.86	143	111	–	218	0.1740	
JVS1441+6318	14 41 58.671	+63 18 33.44	-0.73	2.21	2.33	-4.3	19.20	1	6.1	>22.01	–	–	> 2.81	329	208	438	229		
JVS1442+3042	14 42 41.531	+30 42 32.93	–	–	–	-9.9	>20.00	–	–	>22.01	–	–	–	183	518	470	61		
JVS1445+0958	14 45 16.466	+09 58 36.07	-0.43	-0.33	0.54	3.2	17.64	-1	-0.9	19.02	-1	-1.0	1.38	210	2417	2415	127	3.5220	
JVS1445+2438	14 45 27.047	+24 38 04.28	0.25	0.14	0.29	3.5	18.57	-1	-1.9	19.26	-1	0.6	0.69	489	212	181	257		
JVS1445+0004	14 45 31.483	+00 04 35.39	–	–	–	-9.9	>20.00	–	–	>21.12	–	–	–	327	186	403	166		
JVS1446+0608	14 46 32.708	+06 08 06.13	–	–	–	-9.9	>20.00	–	–	>21.88	–	–	–	1184	274	248	918		
JVS1448+5326	14 48 59.172	+53 26 09.29	–	–	–	-9.9	>20.00	–	–	>21.85	–	–	–	2908	157	136	3704		
JVS1451+1343	14 51 31.491	+13 43 24.01	–	–	–	-9.9	>20.00	–	–	>21.85	–	–	–	215	691	712	323		
JVS1452+4522	14 52 24.675	+45 22 23.67	-3.15	-2.06	3.76	-9.9	15.12	1	20.1	15.53	2	17.1	0.41	281	412	360	163	0.4690	a
JVS1455+4431	14 55 54.136	+44 31 37.67	0.22	-0.07	0.23	3.6	>20.00	–	–	19.50	-1	-0.5	<-0.50	174	194	148	118		
JVS1457+4158	14 57 40.687	+41 58 41.89	–	–	–	-9.9	>20.00	–	–	>21.85	–	–	–	167	513	510	164	0.8750	y
JVS1457+3439	14 57 57.303	+34 39 50.39	0.50	-0.18	0.53	3.4	19.16	1	2.5	19.81	-1	2.1	0.65	349	244	331	305	2.7320	
JVS1500+0855	15 00 13.407	+08 55 25.71	-0.31	-0.09	0.32	3.5	>20.00	–	–	21.69	1	2.3	< 1.69	168	278	299	101		
JVS1503+0419	15 03 28.888	+04 19 48.98	0.05	-0.37	0.37	3.5	18.01	-1	1.1	19.96	-1	0.0	1.95	244	126	123	124	3.6700	
JVS1504+2854	15 04 26.700	+28 54 30.60	0.29	0.32	0.43	3.5	18.55	-1	-0.5	18.71	-1	0.7	0.16	334	583	407	362		
JVS1506+4933	15 06 44.115	+49 33 55.79	0.50	0.35	0.61	3.1	18.17	-1	0.5	-34.73	1	-99.9	-52.90	1264	97	174	963		
JVS1507+5117	15 07 11.615	+51 17 16.85	-0.50	-0.33	0.60	3.3	19.81	-1	0.7	20.44	-1	-1.3	0.63	661	80	–	635		
JVS1507+1236	15 07 21.757	+12 36 29.08	0.35	-0.02	0.35	3.5	18.99	-1	0.3	19.89	1	3.0	0.90	373	106	173	273		
JVS1507+5857	15 07 47.386	+58 57 27.65	-0.26	-0.02	0.26	3.6	18.11	1	7.7	22.15	-1	-0.4	4.04	159	542	566	134		

Table 3. Sourcelist III, continued...

J2000 Name	Position (J2000) α	δ	Opt-Rad Offset $\Delta\alpha$	$\Delta\delta$	Δr	Log lhr	APM Red mag	cls	psf	APM Blue mag	cls	psf	Color mag	GB6 mJy	NVSS mJy	GB1.4 mJy	VLA mJy	z	Com
(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
JVS1509+2839	15 09 04.798	+28 39 26.02	–	–	–	-9.9	>20.00	–	–	>22.18	–	–	–	553	252	–	447		
JVS1509+1611	15 09 10.113	+16 11 27.76	-0.01	-0.34	0.34	3.5	18.06	2	3.5	18.34	-1	1.4	0.28	196	104	–	254		
JVS1509+0545	15 09 47.552	+05 45 31.76	-0.66	-0.08	0.66	3.0	18.68	1	6.2	>22.14	–	–	> 3.46	159	114	–	212		
JVS1511+3439	15 11 20.105	+34 39 32.66	–	–	–	-9.9	>20.00	–	–	>21.81	–	–	–	205	532	476	66		
JVS1513+2338	15 13 40.188	+23 38 35.31	–	–	–	-9.9	>20.00	–	–	>21.85	–	–	–	316	1767	1581	210		
JVS1514+0252	15 14 34.735	+02 52 48.49	-0.56	-0.53	0.77	2.7	19.20	-1	1.0	19.92	-1	1.7	0.72	222	162	320	149		
JVS1515+2458	15 15 54.166	+24 58 40.32	–	–	–	-9.9	>20.00	–	–	>21.85	–	–	–	164	219	189	239		
JVS1516+0524	15 16 18.010	+05 24 33.98	-0.18	0.08	0.20	3.6	18.44	-1	-1.1	19.05	-1	-0.1	0.61	896	252	–	778		
JVS1521+3115	15 21 01.285	+31 15 37.84	–	–	–	-9.9	>20.00	–	–	>21.85	–	–	–	218	175	149	226		
JVS1521+1654	15 21 16.553	+16 54 02.97	0.26	-0.89	0.93	2.3	19.61	-1	-0.0	-20.15	-1	-0.9	-39.76	284	184	208	214		
JVS1522+3414	15 22 54.881	+34 14 09.12	0.62	0.19	0.65	3.0	18.22	-1	0.8	19.22	-1	-0.3	1.00	263	220	228	278	1.3100	
JVS1524+2900	15 24 05.234	+29 00 23.44	–	–	–	-9.9	>20.00	–	–	>21.85	–	–	–	192	279	257	173		
JVS1524+7336	15 24 41.372	+73 36 00.79	-0.21	-0.12	0.24	3.5	>20.00	–	–	21.31	-1	-0.6	< 1.31	893	186	183	693		e,f
JVS1527+1521	15 27 40.003	+15 21 56.91	0.32	-0.61	0.69	2.9	>20.00	–	–	21.18	-1	-0.9	< 1.18	307	308	342	226		
JVS1528+3157	15 28 52.777	+31 57 25.40	-1.00	0.19	1.02	2.1	>20.00	–	–	21.16	-1	0.9	< 1.16	192	255	248	110		
JVS1530+3758	15 30 16.253	+37 58 31.16	-0.01	-0.11	0.11	3.6	17.17	1	6.2	19.51	1	6.8	2.34	194	104	–	155		
JVS1532+6755	15 32 43.343	+67 55 14.00	–	–	–	-9.9	>20.00	–	–	>21.83	–	–	–	215	550	516	176		
JVS1533+0652	15 33 55.955	+06 52 55.01	-0.44	-0.25	0.51	3.1	18.85	-1	-0.8	>22.15	–	–	> 3.30	145	269	236	80		
JVS1535+4836	15 35 14.655	+48 36 59.69	0.26	0.32	0.41	3.4	17.54	-1	-0.3	17.99	-1	0.8	0.45	550	105	–	462	2.5630	
JVS1536+3833	15 36 13.847	+38 33 28.60	-0.05	-0.10	0.11	3.6	18.80	-1	0.5	19.79	-1	-0.8	0.99	226	123	398	112		
JVS1538+1444	15 38 03.426	+14 44 07.54	–	–	–	-9.9	>20.00	–	–	>21.66	–	–	–	384	12	–	257		y
JVS1538+0108	15 38 12.744	+01 08 23.58	2.08	-1.51	2.57	-6.4	15.54	-1	0.5	17.37	1	4.8	1.83	1085	110	–	1344		
JVS1544+0407	15 44 59.427	+04 07 46.36	-0.29	-0.09	0.30	3.4	18.02	-1	0.5	18.59	-1	1.3	0.57	192	808	766	155	2.1820	
JVS1553+1754	15 53 20.808	+17 54 27.51	–	–	–	-9.9	>20.00	–	–	>21.66	–	–	–	306	156	588	239		
JVS1556+7420	15 56 02.987	+74 20 58.15	-0.02	0.08	0.08	3.6	19.43	-1	0.1	20.09	-1	0.9	0.66	1226	179	193	1512	1.6670	
JVS1556+1230	15 56 50.781	+12 30 35.65	–	–	–	-9.9	>20.00	–	–	>21.97	–	–	–	282	155	–	369		
JVS1556+1825	15 56 54.819	+18 25 13.61	–	–	–	-9.9	>20.00	–	–	>22.03	–	–	–	169	96	–	237		
JVS1557+4522	15 57 18.999	+45 22 21.54	0.18	0.22	0.28	3.5	>20.00	–	–	20.70	-1	-0.8	< 0.70	288	605	731	174		
JVS1557+0001	15 57 51.436	+00 01 50.41	–	–	–	-9.9	>20.00	–	–	>21.61	–	–	–	810	605	–	500		
JVS1559+5924	15 59 01.704	+59 24 21.84	0.15	-0.13	0.20	3.6	8.74	1	27.8	10.92	2	27.0	2.18	336	219	229	282	0.0602	b
JVS1559+1624	15 59 25.070	+16 24 40.89	–	–	–	-9.9	>20.00	–	–	>22.03	–	–	–	190	321	–	190		
JVS1600+0412	16 00 02.541	+04 12 57.84	0.22	0.26	0.34	3.3	>20.00	–	–	21.14	-1	1.0	< 1.14	288	227	183	272		
JVS1600+1838	16 00 16.988	+18 38 30.04	0.15	-0.17	0.23	3.4	18.04	-1	0.2	18.79	-1	-0.8	0.75	178	206	308	131	2.4000	
JVS1603+0231	16 03 14.849	+02 31 36.25	-0.19	-0.28	0.34	3.3	17.66	-1	-0.7	18.46	-1	-1.8	0.80	6913	215	154	8012		
JVS1603+6945	16 03 18.619	+69 45 57.46	0.34	-0.28	0.44	3.3	16.34	-1	-0.1	17.05	-1	1.1	0.71	225	202	328	233		
JVS1603+2126	16 03 32.448	+21 26 51.76	–	–	–	-9.9	>20.00	–	–	>21.61	–	–	–	544	527	441	692		
JVS1606+1319	16 06 54.645	+13 19 33.92	-3.26	1.77	3.71	-9.9	18.66	1	7.8	21.59	1	4.5	2.93	156	96	–	166		d
JVS1618+3632	16 18 23.583	+36 32 01.81	0.02	-0.24	0.24	3.5	18.54	-1	-0.9	20.09	-1	0.1	1.55	202	562	506	131		
JVS1619+0228	16 19 51.158	+02 28 58.60	-0.36	-0.15	0.39	3.2	18.86	-1	0.1	19.10	-1	0.6	0.24	387	125	140	260		
JVS1620+0036	16 20 47.958	+00 36 53.17	-0.31	-0.06	0.32	3.2	18.70	-1	1.8	19.37	-1	1.2	0.67	285	318	337	231		
JVS1622+1426	16 22 33.996	+14 26 20.60	–	–	–	-9.9	>20.00	–	–	>21.90	–	–	–	361	157	–	472		c
JVS1623+0741	16 23 58.255	+07 41 30.54	-0.11	-0.01	0.11	3.3	18.47	-1	1.8	19.28	-1	1.0	0.81	201	100	–	197		
JVS1624+0543	16 24 07.737	+05 43 24.23	0.09	0.07	0.11	3.3	18.56	-1	1.5	19.18	-1	1.5	0.62	388	145	–	380		
JVS1624+5652	16 24 32.182	+56 52 28.01	0.54	-0.42	0.68	2.9	17.00	-1	1.5	17.90	-1	-1.2	0.90	203	258	213	150		
JVS1627+1216	16 27 37.034	+12 16 07.11	-0.22	0.24	0.33	3.3	18.77	1	3.8	19.39	1	3.6	0.62	527	232	142	398		

Table 3. Sourcelist III, continued...

J2000 Name	Position (J2000) α	δ	Opt-Rad Offset $\Delta\alpha$	$\Delta\delta$	Δr	Log lhr	APM Red mag	cls	psf	APM Blue mag	cls	psf	Color mag	GB6 mJy	NVSS mJy	GB1.4 mJy	VLA mJy	z	Com
(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
JVS1628+1627	16 28 19.976	+16 27 07.47	–	–	–	-9.9	>20.00	–	–	>21.59	–	–	–	350	221	211	208		o
JVS1628+4734	16 28 37.506	+47 34 10.42	-0.12	-0.02	0.12	3.5	17.01	1	3.8	17.86	1	6.0	0.85	290	270	297	210	1.6290	
JVS1629+1500	16 29 44.798	+15 00 18.62	–	–	–	-9.9	>20.00	–	–	>21.59	–	–	–	184	79	–	166		c
JVS1629+6757	16 29 51.836	+67 57 14.96	0.27	-0.24	0.36	3.4	18.10	1	3.7	19.10	-1	0.3	1.00	286	854	885	154	2.4750	
JVS1630+2131	16 30 11.234	+21 31 34.38	–	–	–	-9.9	>20.00	–	–	>21.74	–	–	–	241	509	300	186		e,f
JVS1631+1052	16 31 18.779	+10 52 02.46	–	–	–	-9.9	>20.00	–	–	>21.90	–	–	–	315	147	–	352		
JVS1632+3547	16 32 31.261	+35 47 37.74	–	–	–	-9.9	>20.00	–	–	>21.88	–	–	–	175	536	481	106		c
JVS1635+1831	16 35 39.162	+18 31 03.72	0.06	-0.04	0.07	3.4	17.06	-1	0.8	17.93	-1	0.1	0.87	233	207	–	285	1.0900	
JVS1639+1144	16 39 06.474	+11 44 08.68	–	–	–	-9.9	>20.00	–	–	>21.90	–	–	–	292	342	279	429		
JVS1644+2551	16 44 09.298	+25 51 29.03	0.18	0.73	0.75	2.6	19.72	1	3.6	>21.74	–	–	> 2.02	123	313	319	82		
JVS1647+4950	16 47 34.914	+49 50 00.59	-0.17	0.09	0.19	3.5	14.87	1	20.2	16.54	1	20.0	1.67	223	181	214	271	0.0475	
JVS1648+4104	16 48 29.255	+41 04 05.56	-0.01	-0.13	0.13	3.5	18.99	1	2.6	19.76	-1	-0.4	0.77	169	243	367	104	0.8508	
JVS1650+0824	16 50 37.562	+08 24 52.24	–	–	–	-9.9	>20.00	–	–	>21.74	–	–	–	329	159	623	309		
JVS1651+5805	16 51 22.867	+58 05 42.44	–	–	–	-9.9	>20.00	–	–	>22.24	–	–	–	391	393	349	258		
JVS1653+3107	16 53 29.910	+31 07 56.91	-6.02	2.49	6.51	-9.9	13.24	2	38.5	-14.25	2	33.2	-27.49	177	190	462	119		a,d
JVS1655+1948	16 55 43.565	+19 48 47.11	3.07	-0.36	3.09	-9.9	17.66	1	4.1	18.91	1	4.5	1.25	312	144	254	262	3.2600	i
JVS1656+5321	16 56 39.623	+53 21 48.76	-0.03	0.12	0.12	3.4	18.22	-1	-0.5	18.66	-1	1.4	0.44	381	94	161	356	1.5530	
JVS1702+1502	17 02 21.717	+15 02 06.09	1.62	-1.61	2.28	-4.5	18.68	2	11.4	19.66	-1	-0.2	0.98	199	217	–	86		a
JVS1705+5109	17 05 26.411	+51 09 35.40	-0.03	-0.30	0.30	3.3	18.17	-1	1.4	18.44	-1	1.6	0.27	320	328	335	297	0.5303	
JVS1708+2526	17 08 09.242	+25 26 20.43	–	–	–	-9.9	>20.00	–	–	>22.24	–	–	–	207	51	–	133		c
JVS1713+4916	17 13 35.151	+49 16 32.55	–	–	–	-9.9	>20.00	–	–	>21.92	–	–	–	1801	202	260	1338	1.5520	
JVS1716+2616	17 16 51.834	+26 16 10.90	-0.81	0.57	0.99	1.9	19.11	-1	0.6	19.75	-1	-0.1	0.64	295	205	277	234		
JVS1716+3024	17 16 59.936	+30 24 43.42	-0.13	-0.42	0.44	3.0	>20.00	–	–	21.00	1	2.5	< 1.00	193	153	152	157		
JVS1726+3213	17 26 35.126	+32 13 23.00	-0.23	-0.05	0.24	3.2	16.96	-1	-0.2	17.59	-1	-1.7	0.63	156	123	167	67	1.0900	
JVS1740+4506	17 40 06.370	+45 06 50.38	0.03	-0.32	0.32	3.2	17.35	-1	-1.1	18.20	-1	0.3	0.85	371	271	401	337	2.7880	
JVS1740+4348	17 40 48.949	+43 48 16.16	0.08	0.40	0.41	3.1	18.43	-1	-0.2	19.10	-1	0.8	0.67	184	111	–	185		
JVS1745+6703	17 45 54.355	+67 03 49.31	–	–	–	-9.9	>20.00	–	–	>22.13	–	–	–	199	679	556	128		
JVS1746+6421	17 46 06.680	+64 21 49.65	0.89	-0.24	0.92	2.2	>20.00	–	–	21.28	-1	-0.1	< 1.28	248	279	356	273	1.2280	
JVS2123+0154	21 23 29.093	+01 54 46.56	–	–	–	-9.9	>20.00	–	–	>21.83	–	–	–	778	98	98	411		
JVS2130+0339	21 30 10.499	+03 39 54.86	–	–	–	-9.9	>20.00	–	–	>21.83	–	–	–	865	119	–	487		
JVS2130+0502	21 30 32.877	+05 02 17.46	–	–	–	-9.9	>20.00	–	–	>21.89	–	–	–	174	4098	4805	116	0.9900	
JVS2148+0749	21 48 18.035	+07 49 22.55	–	–	–	-9.9	>20.00	–	–	>21.19	–	–	–	255	423	302	145		
JVS2157+1014	21 57 12.864	+10 14 24.80	1.42	4.98	5.18	-9.9	17.43	2	10.0	17.68	2	11.2	0.25	292	302	313	285	0.7610	a
JVS2205+0117	22 05 00.929	+01 17 55.06	–	–	–	-9.9	>20.00	–	–	>21.79	–	–	–	1042	234	239	1836		
JVS2205+0321	22 05 05.324	+03 21 27.55	-0.18	0.14	0.23	3.5	>20.00	–	–	20.76	-1	-0.2	< 0.76	2015	272	214	1545		
JVS2215+0348	22 15 55.996	+03 48 14.55	–	–	–	-9.9	>20.00	–	–	>22.06	–	–	–	136	213	207	81		
JVS2218+1938	22 18 54.586	+19 38 41.38	0.48	0.07	0.49	3.0	19.71	-1	2.0	19.97	-1	1.6	0.26	1005	139	–	881		
JVS2242+1741	22 42 47.958	+17 41 44.18	0.62	-0.22	0.66	2.8	19.26	-1	2.7	20.64	-1	-0.7	1.38	149	165	–	232		
JVS2251+1436	22 51 19.832	+14 36 23.54	–	–	–	-9.9	>20.00	–	–	>21.70	–	–	–	1125	233	258	1206		c
JVS2251+2217	22 51 53.498	+22 17 37.29	-0.59	-1.71	1.81	-1.4	>20.00	–	–	22.08	1	5.5	< 2.08	172	190	169	255	3.6680	
JVS2254+2445	22 54 09.344	+24 45 23.46	0.02	-0.21	0.21	3.5	17.26	-1	0.3	18.31	-1	0.3	1.05	300	1889	2064	260	2.3280	
JVS2258+0516	22 58 24.604	+05 16 39.18	-0.51	-0.45	0.68	3.0	19.55	-1	0.3	20.50	-1	-0.1	0.95	301	161	314	279		
JVS2300+1235	23 00 44.041	+12 35 59.06	–	–	–	-9.9	>20.00	–	–	>21.70	–	–	–	246	291	250	244		
JVS2301+0609	23 01 53.461	+06 09 12.84	0.33	0.17	0.37	3.5	19.63	-1	-1.1	20.70	-1	1.0	1.07	371	265	268	252		
JVS2308+2008	23 08 11.638	+20 08 42.21	-0.38	0.02	0.38	3.4	16.57	1	7.8	17.58	-1	2.0	1.01	179	188	156	152	0.2342	

Table 3. Sourcelist III, continued...

J2000	Position (J2000)		Opt-Rad Offset			Log	APM Red			APM Blue			Color	GB6	NVSS	GB1.4	VLA	z	Com
Name	α	δ	$\Delta\alpha$	$\Delta\delta$	Δr	lhr	mag	cls	psf	mag	cls	psf	mag	mJy	mJy	mJy	mJy		
(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
JVS2311+1752	23 11 17.417	+17 52 55.03	0.45	-3.01	3.04	-9.9	>20.00	–	–	11.80	2	16.8	<-8.20	159	135	200	90		b,a
JVS2312+1615	23 12 16.963	+16 15 08.33	0.02	-0.46	0.46	3.3	17.68	-1	1.1	18.62	-1	-0.7	0.94	841	55	–	970		a,d
JVS2313+2757	23 13 54.851	+27 57 04.51	0.52	-0.16	0.54	3.0	18.93	-1	-0.6	19.56	-1	0.6	0.63	167	459	395	158		
JVS2316+0221	23 16 07.710	+02 21 19.68	-0.08	-0.19	0.21	3.7	17.55	-1	2.2	18.86	-1	-0.8	1.31	500	83	–	674		
JVS2318+1914	23 18 22.911	+19 14 52.19	-0.32	-0.12	0.34	3.4	>20.00	–	–	21.32	-1	-1.6	< 1.32	230	244	183	118		
JVS2320+1829	23 20 46.777	+18 29 25.78	-0.23	-0.14	0.27	3.5	18.31	-1	0.2	18.74	-1	1.4	0.43	321	163	204	340		
JVS2323+2735	23 23 42.414	+27 35 20.59	-0.98	0.75	1.23	1.3	18.95	-1	0.5	19.91	-1	0.4	0.96	251	287	303	222	1.6900	
JVS2340+0959	23 40 07.262	+09 59 58.99	–	–	–	-9.9	>20.00	–	–	>21.83	–	–	–	147	205	223	115		
JVS2344+2952	23 44 22.557	+29 52 20.67	-0.17	0.03	0.17	3.4	18.45	-1	-1.5	19.08	-1	-0.4	0.63	131	311	296	97		
JVS2344+2748	23 44 37.059	+27 48 35.52	-0.55	-0.10	0.56	3.1	7.87	1	16.2	>21.82	–	–	>13.95	300	158	–	169		b,a


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